The Education Digest

CONTENTS

Juvenile Delinquents—The Latter-Day Knights
The American Scholar 1

Revival of American Education
Educational Forum 5

How Much Does College Really Cost?
School Management 8

Problems and Issues in Science Education
Rethinking Science Education 11

Development of Talent in Europe and the U. S.
North Central Association Quarterly 16

Elementary Schools during the Fabulous Fifties
The Nation's Schools 19

Skeptical Critics . . Educational Leadership 23

Adolescence and Postponement of Adulthood
The School Review 26

Let's Free Liberal-Arts Teaching . NEA Journal 29

My Museum of Morbid English
The Journal of Higher Education 32

The Rearrangement Test
Educational and Psychological Measurement 34

Instruction in Lower-Grade Arithmetic
The Arithmetic Teacher 36

Latin-American Life . . . . Social Education 40

Levels of Discussion in Reading . . Education 42

The EMH Child . . Chicago Schools Journal 45

Teaching Foreign Languages without a Book
Modern Foreign Languages in High Schools 48

With Education in Washington 51

Educational News 55

New Educational Materials 60

Volume XXVI September 1960 Number 1

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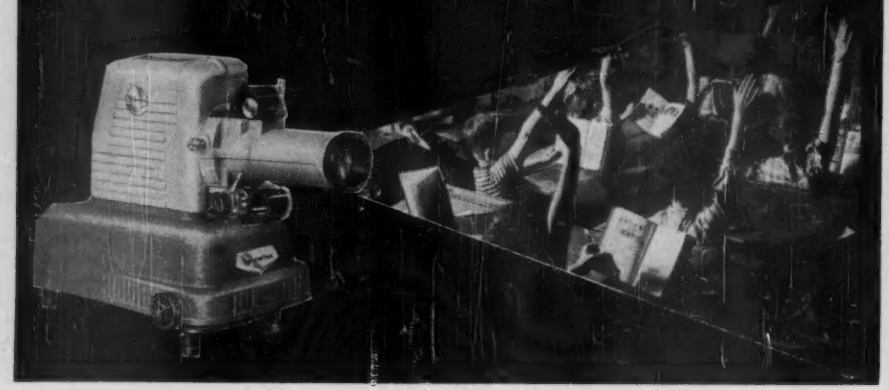

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Volume XXVI SEPTEMBER 1960 Number 1

Lost Allegiance

Juvenile Delinquents — The Latter-Day Knights

JOSEPH MARGOLIS

In The American Scholar

ADULTS nowadays are shocked by delinquency. They are concerned with the fact that it is juveniles, in mounting numbers, who are responsible for our crime records. And they are startled and horrified by certain of the most dramatic aspects of much juvenile delinquency. But, above all, they are puzzled by it, failing to find its core of sense and purpose.

I shall not attempt here to isolate the causes of juvenile delinquency. I wish only to suggest that some well-known facts about a certain kind of delinquency fall into place in a coherent pattern. An analysis of these may be fruitful.

What we require at the present time is a promising model for interpreting the various patterns of delinquency behavior. Perhaps the model I propose is inadequate; it is, however, an attempt at correcting our conception of what the delinquents in question think they are doing in carrying on the way they do. Apparently we don't understand them, for it is perfectly clear that we regard their behavior as senseless, pointless, unprovoked, inexplicable. But we must be mistaken, from their point of view, since there is among them as much seriousness, devotion to imagined duties, sense of honor and trust and cooperation (however perverse), even heroism and selfsacrifice, industry, incentive and reward, foresight and planning as can be found in any legitimate group endeavor. There is among them, moreover, an impressive enthusiasm, *esprit*, solidarity, and even pride that would be genuinely hard to duplicate.

Let me point out two important features that regularly appear in the "gang" delinquency patterns.

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The first is that "there is a war on." The second is that "there must be witnesses."

The sense of war stems partly from the quite regular skirmishes ("rumbles") between highly organized, usually well-armed, and even territorially distinct rival gangs.

But in fact there is no war; there are only patterns that strongly resemble warfare. Even the skirmishes between rival gangs are initiated largely by invitation (although it may not be possible to refuse it). "Do you want a rumble?" is, apparently, a common announcement that sufficient reason has been found for a skirmish to be staged. Nevertheless, there seems to be an understanding between warring companies that a return engagement is always to be expected and that no surrender or compensation could establish peace. Moreover each group seems primarily occupied with the way its own champions conduct themselves.

I have said that "there must be witnesses." There are always witnesses because these delinquents specialize in forays, in group adventures in which more than two boys participate. It is important, apparently, that accredited observers attest the prowess, hardness, strength, courage, cruelty, imagination of any single participant. It would be an absolutely idle waste of energy to commit any of the crimes that are committed and to go unnoticed.

I should like now to speak of gangs in another way. In my opinion, in the large urban centers in which delinquency is most flagrant, juvenile gangs constitute the most coherent, publicly self-conscious, and vigorous communities that can be found. I discount businesses, churches, schools, the police, and other similar groups as not, properly, forming neighborhoods. The gangs actually live together as social ensembles, the perfection of their communities marred here and there by the impinging adult world.

The city is the locale of disintegrating neighborhoods but is, at the same time, the locale of a rising, novel, and peculiarly mobile neighborhood. In short, increasingly in our cities (as well as in certain cities of Europe and Asia) the most effective and powerful neighborhoods that exist are the juvenile neighborhoods. They are the ones, ironically, that preserve some measure of face-to-face community living.

Now the adult world thinks of these delinquents as deviants, outlaws, irresponsibles; it is baffled by its inability to contain them. But the juveniles themselves actually form a string of genuine and relatively stable neighborhoods, with a day-to-day code of conduct, a system of sanctions and rewards, a calendar of community life, an educational program, and facilities for communications and the provision and distribution of goods and services. The adult world has abdicated in large part its neighborhood responsibility and authority.

By its increasing inertia, it has allowed control to pass into the hands of vigorous and ardent youngsters, whose code, however, does not promise to preserve the adult's law-abiding values..

The juvenile neighborhood makes up a simple society in which everyone is known by name and face and accomplishment. It is an aristocratic society—frequently monarchial—but in any case ruled by its most talented persons. The society is usually, at its most audacious, a society of warriors and "free" souls who accept only those limitations on conduct that, as a corporation, they themselves impose. But it also is a society of pranksters, gaming companions, exhibitionists, children, concerned as much with extremities of style in dress and speech as with murder and theft. It is always, however, a loyal brotherhood provided with a more or less clear schedule of honors. And it leads what is essentially a public life, protected as far as possible from the eyes of law-enforcement agencies.

ARE THEY KNIGHTS?

If we are to understand this model, we shall find that we must look to some surprising parallels. I should suggest, because of its familiarity, that of the Knights of the Round Table, without at all ignoring the willingness of our own juvenile gangs to give themselves—in all candor and accuracy—sinister and evil and even repugnant names. It is important to notice that there are no ready models (even models that they might pervert) to be found in the law-abiding world. And it is important also to isolate that critical feature of their own way of life that is so entirely alien to the ideology of the adult world.

The feature in question may perhaps most succinctly be described as "climax-technique" (I borrow the term from the accounts of the code of life of the pagan Teutonic knights). I submit that our juvenile gangs implicitly subscribe to this significant principle, however corrupt their particular values may be said to be. Briefly, the routine of ordinary, unadventurous life is quite worthless, boring, idle to our juveniles; it is made supportable only by celebrating previous sorties and by preparation for others.

In an odd sense, then, the juvenile does not wish to be idle—idleness is death to him. But, curiously, he considers the life of the adult world (and his submission to it) an idle life and, correspondingly, the adult world views his exploits also as a species of idling. The significance of his life lies exclusively in the climactic and perilous mountain peaks of the adventures he enters into so wholeheartedly (an important inversion of the purity of the soul we associate with, say, the devotion of the Round Table Knights). So he proves himself from episode to episode—whether by torture, theft, sexual liberties, murder, fighting, vandalism—always in accord with the strict code of his own society.

The values of the adult world have to do with docility and safety and, most important, with the merits of prolonged routine work. It is here, therefore, that we have the most dramatic evidence of the breakdown in the educational apparatus of the adult world, of the autonomy of the juvenile; we must acknowledge the existence of a subsociety that effectively recruits and instructs novices (willing or not) in a way of life that, in the most fundamental manner possible, is opposed to the value of an otherwise incredibly powerful society.

The juvenile world is simply slipping through very strong nets; but, as it does, it is also managing to get control of the vital neighborhood. It repudiates the declared values of the adult world and, finding itself potentially in control of an unorganized neighborhood, simply reinforces the quite naturally intimate and sustained society of the young and moves to institutionalize its own values. It is necessarily parasitic, feeding on the wealth and skills and goods of the adult world, relieved therefore of any positive concern with the maintenance of the requisite routines; and thus relieved, it is almost entirely free to pursue those special ritual adventures by which it distinguishes itself.

The phenomenon of the delinquent gang is not an altogether new one. Gang and quasitribal patterns are quite familiar among adolescents, patterns at once compulsive and inclined toward outlawry. Still, we cannot fail to notice certain distinctive features of the current delinquency: the advanced decline in adult participation in the forming and maintaining of neighborhood policy, particularly with respect to the hour-to-hour activities of the adolescent and the apparently easy accessibility of dangerous weapons. We may also remark the juvenile's interest in the publicized exploits of otherwise unfamiliar criminal "heroes." Delinquency appears to have taken on an epidemic quality, and the criminal achievements of newly discovered offenders invite appraisal and emulation. In fact, the ever-efficient press actually facilitates the standardization of juvenile conduct, and consequently that of juvenile crime.

Although it would be madness to refuse to admit the threat posed by juvenile gangs and their responsibility for their own crimes, it would be a serious blunder to imagine that increasing the severity of penalties for juvenile criminals will in any way reduce their activity. Similar measures have not affected senior crime. Given the mentality of the juvenile types I have been trying to describe, such measures can only serve to make their lives more daring and more exciting, without at all disturbing the solidarity of their society. Punishment, then, is a force somewhat misapplied, since it aims at restraining the juvenile and not at recovering his allegiance. But it is precisely this allegiance that the adult world has lost. •

What Is the Heart of the Problem?

Revival of American Education

I. L. KANDEL

In The Educational Forum

THE American public has always manifested a strong faith in the provision for education. In the last few years, however, it has begun to show a serious concern about the quality of education being given in the schools that it has generously provided and maintained. A period of unrest should offer an excellent opportunity to draw up an inventory of the weak and strong points of this institution which is the object of dissatisfaction. Rarely, however, have effective efforts been made to correct patent errors even when they have been pointed out.

An inventory of the strong and weak points of American education would certainly justify the people's pride in their faith in education and in the gradual attainment of the ideal of providing equality of educational opportunity. No other country has as many students enrolled in its educational institutions at all levels. The provision of buildings and equipment is lavish —sometimes more lavish than the educational and instructional needs require; the material fabric may, in fact, delude the public into confusing "schooling" with education.

Statistics of enrolments in high schools and colleges may indeed be regarded with pride. But they are meaningless in the light of the low grade of achievement cited by many sincere and thoughtful critics of the present day practices.

Some of the causes of the weaknesses of American education can be found in present practices and in the trends which have developed in recent years. But, speaking generally, the basic weakness of American education has been caused by the constant change of fashions, which began to be decried before progressive education became the dominant theory. Experimentation and pseudoscientific methods, as well as the administrative pressure to "sell" education to the public, were in turn responsible for the multiplicity of cure-alls, panaceas, and half-baked ideas which flourished for a while and had their days until something new was concocted.

The curriculum-revision jamboree, as the late Dr. Bagley called

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it, was succeeded by the child-centered school; then came *seriatim* education for technocracy, education for the air age, education for international understanding, the cult of Latin America, education for victory, education for the space age, education for the atomic age, and then the community-centered schools. The end of slogans has not yet come, and there is still a chance for education for the electronic age. The electronic devices will commend themselves as aids to teachers as well as substitutes for teachers in this age of shortages.

TEACHERS CONFUSED

In a yearbook on *The American School Superintendency* (1952), it was admitted that "many teachers are confused by the changes in theory and practice that appear to them to be advocated in rapid and bewildering sequence." Beset by all the changes in theory and practice, the teacher is expected to be a combination of psychiatrist, social scientist, scientist, and an individual of considerable culture; also a man or woman of action. The list might be expanded by adding that he should also be a hygienist, guidance and welfare officer, and able to participate in extracurricular activities.

It is for these reasons that the Harvard Committee was justified in writing in *General Education in a Free Society* that "we are faced with a diversity of education which, if it has many virtues, nevertheless works against the good of society by helping to destroy the common ground of training and outlook on which any society depends." Dewey's suggestion 20 years ago that education be discussed without qualifying labels has never commended itself to educators.

Under the circumstances it is difficult to discover where the leadership so urgently needed today will be found. Federal leadership is feared lest the price for it may be too high and at the expense of local initiative and independence. The fear of external dictation, however, does not seem to extend to the acceptance of grants from a private foundation to put into practice ideas elaborated in the foundation's sanctum. In this way there have been subsidized the use of teachers' aides, the employment of "master-teachers," the more extensive use of TV programs, and a new scheme for the preparation of teachers.

The use of teachers' aides was tried and abandoned in the early years of this century. The "master-teacher" idea recalls the Lancasterian system in which one teacher first taught a large class, and monitors continued his work with smaller groups. The term "master-teacher" misrepresents the original use of the term. Educational TV is no doubt valuable as an aid or supplement, but it becomes open to suspicion when it is recommended as a method of "deploying" teachers and of solving the problem of teacher shortages. Pedagogical

memories are short and the experiments with educational films and radio have already been forgotten. The personal and direct influence of the teacher cannot be replaced by broadcasting "his master's voice" into the classroom. Nor is there any substantial innovation in the scheme to prepare teachers by fastening the technical parts of education on to a completed liberal education; that is not the way that the much-needed reform of teacher preparation lies.

HEART OF THE PROBLEM

The heart of the problem of educational revival lies in the reform of the preparation of teachers for elementary and secondary schools and the establishment of the teaching career on as dignified a professional basis as is enjoyed by other professions. The classroom teacher should have greater opportunities for participating in leadership instead of being a "hand" in a system, even if the system is administered by a good board of education, a good superintendent, and a good principal. The success of an educational system depends on what goes on in the classroom and, therefore, on the teacher.

As the burden of administration of an educational system takes on more of the characteristics of big business, other sources of leadership must be found. With increased professional preparation, the status of teachers and administrators has changed markedly since the days when there may have been some justification for the "factory system" of administration.

Nor can the participation of the public be ignored. Since the end of World War II, the public has voiced its concern about the quality of education at both the elementary and secondary levels. In many areas public councils have sprung up and are devoting their attention to raising the standards and quality of education. Leaders concerned with the national welfare and the cultural progress of the country have frequently pointed to the importance of an adequate preparation of the nation's potential leaders and manpower. The opportunity now presents itself of capitalizing on the new-found concern of the public for quality of education and of strengthening the American system of education at those points where the deficiencies have been emphatically revealed during the past few years. There may be a new emphasis on the quality of education and on raising standards. Committees may devote their attention to new courses in science and mathematics.

But such activities will be of no avail unless every student in every school in the country is taught by teachers who are professionally competent. And professional competence means a mastery of subject matter as well as a knowledge of the techniques of teaching. The two sides of competence have too long been separated, and the time has come to realize that they are aspects of the same activity. •

High Today—Higher Tomorrow

How Much Does College Really Cost?

In School Management

MOST authorities predict that college enrolments will double by 1970, while college operating expenses will almost triple. One question that hasn't been asked in these projections: Who will foot the bill, estimated at more than $10 billion?

It is quite possible that sheer inability to pay the tab for increased costs may well "solve" the over-enrolment problem. That it will have an effect of major proportions is borne out by the results of a recent study of parents' college plans conducted by Elmo Roper Associates for the Ford Foundation.

Roper uncovered a shocking amount of misinformation about present and future college costs. Two major conclusions emerge from his cross-section survey of 5,000 heads of households: First, parents are grossly underestimating the cost of higher education. Second, parents are making almost no adequate plans for financing their children's college careers. Nevertheless, despite this unrealistic view of the cost problem, they expect 69 percent of their children under 18 years of age to go to college.

There would be nothing particularly startling about all this were it not for one shocking fact. Half the parents Roper consulted had no idea of what a college education might cost. Those who did, expected the median cost to be $1,450 per year, *including everything—tuitions, fees, books, supplies, room, board, clothing, entertainment, travel, and all other incidentals.*

Reported from School Management, *IX (March 1960), 61-62, 115, 116.*

Unfortunately, even those parents with some idea of what their expenses will be are making a critical error in their calculations. They are basing their estimates on present-day costs. This is a dangerous assumption. Nor can existing scholarship or loan funds be depended on to close the gap between student need and available financial help.

As for the government's share of the burden of college financing, it is safe to assume that it will increase in the next decade. But there is no assurance that federal funds will ever be great enough to relieve entirely the pinch families with college-bound youngsters are sure to feel.

To clear up some of the misunderstanding and misinformation that prevails on the subject, *School Management* recently conducted its own investigation of what it costs to go to college. Many authorities were consulted in the attempt to set the record straight.

The facts which follow were obtained in this inquiry.

Member colleges of the College Entrance Examination Board find that the average yearly expense faced by students stands today at $1,736. Costs range from a low of $162 at one municipal school to $2,950 at an independent college. Expenses at a majority of the 250 member institutions fall between $1,000 and $2,000; costs at the top quarter of these schools are above $2,000. Only 6 percent of the schools list costs below $1,000.

These figures include only basic costs—tuition and fees, books and supplies, room and board. Not included are such items as entertainment, clothing, travel, and that catch-all, miscellaneous. This last group of expenses can loom large depending on whether the school attended is public or private, the size of the family's income, where the college is located, and what the student's habits—and needs—are.

Harvard University has published an estimate of personal expenses of the average student. It is suggested that a budget of $400 yearly should be enough to meet all of a student's needs with the exception of tuition and room and board. Travel, if the student's home is far from Cambridge, Massachusetts, is extra.

The time-honored method of paying for college expenses is for the student to work his way through school. But a great deal depends on the school in question. Are there enough jobs available to meet student demand? And much, too, depends on the student. How much of an outside work load can he assume before it affects his academic performance?

WORK OR AID?

Opinions vary concerning the optimum outside work load a student can safely accept, but 10 to 15 hours per week seems to be the limit generally agreed on. Considering that the average wage is approximately $1 an hour, a working student can count on $300-$450 of earned income per 30-week school year. This, combined with any additional income he might earn during the summer, could pay for a major share of his college costs, *provided* expenses at the school of his choice are modest. If he has set his heart on a more expensive school, he will be forced to investigate other ways to obtain financial assistance.

The student may already have looked into the availability of scholarships to help him through college. These are offered by many of the schools themselves, as well as by a wide variety of business, religious, and fraternal organizations, individual states, and groups and foundations. On the face of it, it might seem that there are plenty of scholarship programs available. Roper found that 41 percent of the parents interviewed are planning to make use of them. But in most of the colleges checked by *School Management*, a much lower percentage of students re-

ceive such aid. Scholarship funds are becoming increasingly harder to find. And, with higher enrolments in the next decade, chances are these funds will become rarer still.

There is one other avenue of financial aid open to the student who has exhausted other means of meeting college costs – student loans. Most colleges have some system of lending money to needy applicants. In fact, some educators feel that making education available on a loan basis is preferable to the work-and-study alternative.

On-campus student-loan programs, however, are generally of an emergency nature designed to help the student out of a temporary financial hole. Consequently, loans rarely go beyond $500, though some schools set limits as high as $2,000.

Under the National Defense Education Act of 1958, the federal government stepped into the picture with a student-loan program that permits borrowing up to $1,000 a year for five years. Repayment needn't begin until a year after graduation and—if the student becomes a teacher—10 percent of the loan is forgiven for each year of teaching up to five years. In other words, under these conditions only about half the loan must be repaid.

But here again, the demand has far outstripped the supply. According to Secretary Flemming's year-end report, there are not now sufficient funds for current requests by participating schools.

Instalment buying is also being experimented with in some quarters. A private organization advances the total amount needed, and the student's family pays off the debt in instalments. But this whole idea of long-term borrowing to pay for higher education is repugnant to many serious educators who feel that few students are willing to mortgage their futures. The idea, too, conflicts with the avowed purpose of state universities and colleges to be integral parts of every state's free public-school system.

The only certain prediction that can be made about the cost of college is that it is bound to mount in the coming decade. Whether or not these increased costs can be offset by enlarged scholarship and loan programs is anyone's guess. One thing most parents can be sure of: The classic American tradition of working one's way through college will become more and more difficult every year.

The best way parents can insure their children's college education is to keep well informed about the real costs they must meet. Their key source of information for this purpose must be the high-school guidance counselor. He can fill the gaps in their knowledge and—from his better understanding of the over-all picture—direct students' attention to schools that are within their academic and financial grasp. •

Will They Ever Be Completely Solved?

Problems and Issues in Science Education

PAUL DEH. HURD and PHILIP G. JOHNSON
In Rethinking Science Education

THERE is, today, a general ferment in education, but it is perhaps most active in the area of science education.

Some of the issues involved in current discussions are of long standing; others are of recent origin. Several are the result of large social movements and phenomenons, such as: (*a*) the growth of school population, (*b*) the shortage of qualified teachers, (*c*) the accelerated achievements in science, (*d*) the demand for an increase in technically trained manpower, (*e*) the growing importance of science in the affairs of mankind, (*f*) changes in the processes and goals of science, and (*g*) conflicting opinions concerning the role of the school in the education of youth. Many of the issues are also intertwined with broader problems of education, such as finance, organization of the schools, and the optimum size of schools and classes.

There is no doubt that the events and circumstances of the past few years have made some traditional ideas obsolete. In our own review of the current problems and issues in science education, we sought information from many sources—articles, research, reports, etc. We also asked the views of nearly a hundred well-known scientists. We gathered opinions on many phases of this broad subject—the purposes of science teaching, the problems of organization within the schools' program, and the like. But the two problems of science teaching commented on most frequently dealt with curriculum and teacher training.

Discussion of all of these areas brings forth valuable ideas. Some current views of educators and scientists on the problems involving the teacher's role in science education and the training of science teachers should be especially useful.

Paul DeH. Hurd is Professor of Education, Stanford University, California, and Philip G. Johnson is a member of the faculty, School of Education, Cornell University, Ithaca, New York. *Reported from* Rethinking Science Education, *Part I of the 59th Yearbook of the National Society for the Study of Education (1960), Chapter XVIII,* 329-38.

We find there is much concern currently for the way science is taught. Some of the problems include:

1. *What kind of instruction is needed for science courses?* Many commonly used teaching procedures offer little promise of realizing such objectives of science teaching as the development of problem-solving ability, critical attitudes, and an appreciation of science. The difficulty may be that science teachers have been taught by methods that did not achieve for them the results expected of pupils.

Educators realize that the improvement of instruction involves: (*a*) the better selection and use of means to develop concepts and ideas, (*b*) improved use of research-study procedures in learning science, (*c*) the organization of instruction to provide practice in the application of science theory, and (*d*) the use of methods and procedures that will develop more pupil responsibility for learning.

2. *What should be the emphasis in laboratory work?* Changing conceptions of the values and purposes of science teaching have tended toward an increasing emphasis on laboratory work. The nature of the scientific enterprise is found in the methods by which problems are attacked. Therefore, more attention should be directed to the processes or methods of seeking answers in the laboratory rather than putting so much stress on finding exact answers. More time should be spent by students in developing insights as to how data may be processed and predictions made from them.

3. *How can out-of-school activities be made more useful in achieving the objectives of science teaching?* With competent supervision, junior- and senior-high-school students make a unique contribution to the objectives of science teaching through extra-class or out-of-school activities. Such activities include science fairs, science clubs, science contests, or projects and exhibits, all of which may reflect credit on the school and the participating students. But questions are frequently posed as to whether or not all such activities serve the useful purpose of developing a better understanding of science. With reference to activities involving projects or the preparation of exhibits, it is sometimes questionable whether they are worthy ends in themselves; and it is not always easy to determine whether or not their supervision constitutes the best use of the teacher's time.

PUPIL ACHIEVEMENT

Presented below is a summary of the current problems and issues concerning teacher responsibility for pupil achievement in science.

1. *What is the responsibility of the teacher for guidance and evaluation?* Science instruction should, at all levels, acquaint children and youth with the work activities of scientists, engineers, and tech-

nicians. This aspect of teacher responsibility for guidance and evaluation of learning experiences is known to have been disregarded for years in many localities and in many types of science education. The science program should not ignore differences in ability and interest among students. Questions arise in all instructional procedures as how to best provide for the intellectual advancement of pupils of all classification groups.

2. *What should be the characteristics of the rapid-learner program in science?* The science teacher has a responsibility for the identification and cultivation of gifted students who might well become eminent scientists or teachers of science. Instructional programs designed to provide an opportunity for gifted pupils to cover the average course in science in less time than the average pupils require to complete the course should not be suspect. On the contrary, students who are capable of working with those aspects of science which are more sophisticated should be encouraged to assume more and more responsibility for their own learning as they progress through school and to avail themselves of opportunities to explore the values of research as both process and product in their pursuit of knowledge. There is, however, a commonly stated criticism of the practice among high schools of duplicating college courses in science in order to provide a rapid-learner program for the benefit of gifted students who plan to enter college.

3. *Can evaluation in science be developed in terms of the objectives of science teaching?* Many science teachers agree that a good evaluation should give evidence of the student's understanding of the science concepts, his power to think in the field, and the ability to use his knowledge in making predictions from data. A problem arises in connection with the conviction of high-school authorities that colleges do not value these achievements of students as sufficient to regard them as a major qualification for admission to college. In this situation, the high-school authorities may have some difficulty in determining what types of evaluation are to be recognized as sufficiently important to be used in measuring the outcomes of science teaching.

4. *Should there be supervision of science teaching?* The rapid extension of knowledge in the field of the sciences and the steady improvement of adult understanding of the learning process have increased the need for facilities and plans designed to help teachers achieve and maintain professional competence. That these attainments are a result of competent supervision through the years of preservice and in-service training is generally recognized.

On problems pertaining to the adequacy of personnel services and the facilities for science teaching, these seem important:

1. *How can an adequate supply of competent science teachers be maintained?* The current shortage of well-trained teachers militates against the improvement of science instruction in the schools. In part, the problem is how to get more science teachers who are well trained professionally as well as academically. A related problem involves procedures which might enable science teachers among college faculties to guide a larger number of their most promising students into teaching. The suggestion has been made that the influence of superior teachers in science areas might be advantageously extended by delegating paper-grading, housekeeping chores, and other routine functions to nonprofessional personnel. During the last decade, a great deal of effort has been expended on plans to provide better utilization of the successful teacher's time, the expectation being that the released time would be used to improve science instruction rather than for promotion of nonscience interests.

2. *How can the adequacy of facilities for instruction in science be increased?* Appropriate facilities and equipment do not insure superior teaching, but they are essential to any level of creditable teaching performance. For example, science teachers urgently need facilities in biology laboratories sufficient to accommodate the trend toward more experimentation and less observation. Junior-high-school teachers require well-designed science rooms which make it possible for pupils to carry on individual projects and laboratory work. In the science laboratories of both junior-high and senior-high schools, teacher emphasis on projects makes the working and storage areas for these activities a matter of major concern.

3. *How can the time available for teaching science be most equitably allocated?* Time for science is an issue at all levels of teaching. In the elementary school, the need for adjustment may involve a question regarding regularly assigned time. At the high-school level, recommendations of teachers will more likely be in the nature of an appeal for reallocation of the available time. This is not to imply that science should have more than its fair share of the scheduled day. The problem lies in the organization of the time required for the science curriculum.

FACTORS AFFECTING PROGRESS

Most teachers will be interested in the following factors which influence progress in science education.

1. *What kind of training do science teachers need?* The question of what constitutes the best training for science teachers has been debated for many years. The preservice education of prospective science teachers often continues to be similar to, if less than, the training considered desirable for a research scholar in science subjects. It is generally overlooked, however, that science teachers are principally

engaged in helping young people acquire a liberal education, including science, rather than in training specialists in the field of science. There are thousands of small high schools in which one person must teach biology, physics, chemistry, and any other course offered. It is, therefore, scarcely sufficient to undertake preparation of science teachers generally in light of the precise services science teachers commonly perform. The teaching of a science subject having a moving frontier would naturally entail more or less continuous study on the part of the teachers. Yet, it is not to be expected that colleges and universities will always be able to accept responsibility for keeping the teachers up to date.

2. *How can the teaching of science be improved through educational research?* Research is the means of discovering new truths about learning and about the nature of the child, as well as about physical phenomenons. The strategic problem of schools and colleges in which teachers are being trained for service in the field of education is that of acquainting both in-service and preservice teachers with the results of research investigations. It is commonly reported that, as the new knowledge disclosed by research becomes a familiar practice in the teaching process, schools and colleges disseminate this knowledge through the media of lectures, discussions, and publications. Continuously, the contributions of research investigations strengthen and expand the competence and the influence of teacher-training institutions, thereby improving classroom teaching generally.

Attempts to reformulate the philosophy of science education and activities to reorganize and improve science instruction indicate neither full agreement on past solutions of problems relating to purposes, content, and methods nor on those contributed by contemporary thought. The problems of science education will never be completely solved. But children must be inducted into a culture which is increasingly oriented in science.

There *are* areas of agreement as to how science education can be improved. The task of the educator, the scientist, and the public, generally, must be defined in terms of our present knowledge of science and the learning process, of the importance of science in contemporary life, and of our responsibility to the oncoming generation. •

MARS is the name of a star so far off it would take a million years to walk there in an express train . . . A vacuum is an empty place with nothing in it . . . The alimentary canal connects Lake Erie and the Hudson River.—Boners reported in *San Francisco Teachers Journal.*

A Comparison of Six Talents

Development of Talent in Europe and the United States

JAMES B. CONANT

In The North Central Association Quarterly

I AM well aware that the use of the word "talent" is a bit old-fashioned and not in accord with modern scientific usage. The words "aptitude" and "ability," I recognize, are much more current in psychological circles. I know, also, that no talent—or aptitude—is simple; it is composed of a number of different factors. But let me go directly to the subject which I have chosen to discuss.

First, I shall remind you of the structure of education in Europe and in the United States. I am speaking of the free nations of Europe, of course; I am going to leave the Soviet Union and its satellites out of account. I will tell you frankly that I think we have heard too much about Russian education.

What I have to say refers, then, to the Continental free nations. In these countries the educational system is so set up that many families and many children make a tremendously important choice at age approximately 11. Something like 20 percent of an age group are selected and enrolled in what I will call pre-university schools. They are selected, of course, from only those who apply—an important point. Those who do not apply, or who are not selected, go to work at 14. Meanwhile, they attend what we would call a continuation school.

James B. Conant, former President of Harvard University and U. S. Commissioner to West Germany, is well known for his reports on education in the United States. Reported from The North Central Association Quarterly, *XXXIV (April 1960), 265-72.*

We do have, in our country, different kinds of secondary schools, and they differ in quality as well as objectives. But in our system the education for all students continues to 16, 17, or 18 years of age.

Let us consider the development of talents in our high-school system as contrasted to the development of the academic talents in the European situation.

What are the talents that I have in mind? First of all is a talent for dealing with people—leadership—give it many names. It is a group of talents, I suppose, but of first importance in a democracy. Second, athletic talent; third, musical talent; fourth, artistic talent; fifth, what I shall call manipulative talent; and sixth, academic talent.

Frankly, in Europe at the taxpayers' expense and in the formal school system, practically nothing is done to develop the first four—the talent for getting on with people, athletic talent, musical talent, and artistic talent. Only the last two, the manipulative and the academic, would be considered by most Europeans as falling within the scope of their educational system. On the contrary, in the United States we have seen a tremendous movement toward all four of these talents.

The talent for dealing with people is so general and so difficult to define that I would speak of it in the general terms of what we accomplish or attempt to accomplish by courses in the social studies, by our organization of the school, by extracurricular activities in part, and by school government and organization. I think I can make a positive statement that any foreign observer who tries really to find out what is going on in our tax-supported schools will come to the conclusion that we do a far better job in this area—an area which merges with education for citizenship at several points—than any other nation in the world.

The Germans, I found, were not very enthusiastic about some features of our system. But both in Germany and in Switzerland I was asked time and again, "What do you do about education for citizenship? We know it is good. We would like to imitate it if we could."

I don't think I have to tell you what has been done in this country to develop athletic, musical, and artistic talent. Concerning the last two named I am sure you will agree that one finds great diversity. I could name school systems in which not much more is being done than in the European schools; but I could name others in which a great deal is being done at taxpayers' expense for avocational ends and almost on a professional level, too.

The European would say of this: "Oh, that has nothing to do with the state. That is entirely private and requires special time and special money. If they want to develop their musical and artistic talents, let them." I think in no respect is the European situation more different than in its disregard for the development of the musical and artistic capabilities of its students in contrast with the United States.

MANIPULATIVE TALENT

Now I come to manipulative talent, which when developed leads to skills of a competent craftsman or technician. In Europe, development of this talent is recognized as a responsibility of the educational system. Indeed, both in Switzerland and in Germany they would say that a great deal of their industrial success is based on an educational system for developing the manipulative talents. This is, however, quite apart from the development of academic talents. In Europe, when a boy graduates and

leaves the common school at age 14, he goes to work. If he is interested in becoming a skilled workman, he first becomes an apprentice in one of the schools of the great industrial plants. After he has completed this training and has had a few years' experience as a skilled workman, he may take certain examinations and, having passed these, be enrolled at age 18 or 20 in a *technicum*. Through this method there are developed and trained the people who will be foremen within the plants.

We see here a whole system. But it does not approximate the vocational basis for the industrial arts in our widely conceived comprehensive high schools or in tax-supported vocational schools.

Finally, we come to academic talent. The development of academic talent in Europe is what people are thinking about when they praise European schools. Selection for pre-university schools is rigorous, the course is stiff, there is a lot of competition, there are many examinations and much homework—and from one-half to two-thirds drop out. One might get the impression that all with academic talents are automatically drawn into these schools and that only those without ability are excluded. This is far from being the case. In Europe, far more than in the United States, family tradition plays an enormous role. There are great numbers of families in every German state and in every Swiss canton that would never think of trying to have a son or daughter enrol in one of these pre-university schools, however bright he or she might be.

If I were to try to sum up the great difference between European and American tax-supported education, I would say the difference is that the Europeans are committed to developing only two talents (and those quite extensively)—the manipulative talent by one road and the academic talent by another. Who will follow each road is very largely determined by family tradition, something approaching a caste system, if you will.

In the United States, we have developed a system of schools which in many communities, but not all, is concerned with developing a great range of capabilities, each according to his own talents.

Sometimes I have met well-intentioned, interested parents or laymen who say, "Seriously, now, don't you think we ought to import the European system?" These people, of course, have heard only of the European pre-university school. They have thought that, of course, their own children would be automatically enrolled in these schools. They have never thought about the selective features or of the fact that many who enter fail. Even in this divided world with all its threats and problems, I do not believe that any radical change is required in the basic pattern of American tax-supported education—either elementary or secondary—to make it satisfactory. •

They Changed Only a Little

Elementary Schools during the Fabulous Fifties

HAROLD G. SHANE
In The Nation's Schools

DURING the 1950's American public education was the object of vigorous and widespread criticism and attack without parallel in our history. Instructional methods and the quality of learning often were viewed with alarm, and the values and objectives of the schools frequently were berated with vehemence. After 10 years of this widespread discussion, it has become not only a matter of interest but also of importance to assay the effect which the Great Debate about education has had on school administrators.

A recently completed survey of elementary-school practices at the beginning and at the end of the 1950's indicates that the Great Debate apparently has reaffirmed the faith of a large majority of our superintendents in the basic soundness of the design of present-day public education. Furthermore, these administrators reflect a desire to see that all American children continue to experience enriched "liberal" programs rather than academically "conservative" instruction which merely stresses mental development.

At the same time, it should be clearly understood that U.S. educational leadership, as sampled in our study, did not favor the more thoughtless, 1920-vintage type of "progressive" education. Instead, these administrators seem to have engaged in a great reappraisal of the functions of the schools. They have discarded certain ideas they believe proved wanting and have accepted a hard core of tested modern practices that promise to elevate our schools with respect to humane, developmental concepts of teaching and learning and with respect to the increased academic progress of pupils.

Harold G. Shane is Dean of the School of Education at Indiana University, Bloomington. Reported from The Nation's Schools, *LXV (April 1960), 71-73, 146, 148.*

Last year, in a study made at Northwestern University, administrators were invited to answer an 84-item questionnaire about how certain educational practices and conditions had been modified in their school districts in the past 10 years. A total of 183 useful replies were received and these have provided the basis for our report. There follows here a short summary of the views concerning the current situation as seen through the eyes of the administrators of 183 schools in which two million pupils are enrolled.

The elementary curriculum

actually has become somewhat more liberal during the past decade. The trend toward teaching related subject matter in relationship (for instance, combining or correlating separate classes in history and geography as "social studies") has continued to find wide acceptance.

Also, insofar as the survey sample was representative, it may be inferred that few schools have thus far made any effort to cut back their special offerings, some of which have been attacked as "frills."

Superintendents generally reported a substantial increase in lay participation in curriculum development with parents and other citizens invited to discuss and to plan with faculty members.

Asked about their aspirations for the future, only a few superintendents were concerned solely with academic progress. The remainder, including many nationally known leaders, hoped that in the sixties their schools would accept more rather than less responsibility for the social, emotional, and physical development of pupils.

REPORTING PRACTICES

The long-standing controversy over ways of reporting pupil progress continued to flourish during the period covered by this survey. According to respondents, the use of formal report cards with their *A, B, C* marks apparently held its ground, and the use of informal reporting faded somewhat but it did not reverse itself. But while it might appear that the informal reporting practices had declined or were declining, a marked increase in the liberal practice of reporting pupil progress through parent-teacher conferences was observed. In short, while the nature of report cards themselves seems to have changed but little, a distinct effort has been made to interpret pupil progress to parents through direct contact with the teacher.

The administrators polled believe that, in the future, elementary schools should plan to make even greater use of carefully designed conferences, plus supplementary letters to parents in which a pupil's academic progress, personality, characteristics, and social relations are interpreted and discussed.

Educational leaders do not seem to have been swayed during the fifties by the critics' demand that our elementary schools be made more competitive and that increased use be made of awards and honors to motivate pupils to greater effort. Returned questionnaires indicated that 50 percent of the 183 systems had encouraged competitive academic practices earlier but that such intellectual Olympics were declining.

A small minority of administrators believed that competition might be increased slightly. But generally there was no marked sympathy for the severe academic competition ingrained in many European educational systems which base admissions to college-

preparatory programs on national examinations.

Insofar as future policies were concerned, two out of three administrators believe that in the sixties each child should be encouraged to compete with himself, to strive to better his own scholastic record rather than to exceed his classmates' records.

TESTS INCREASE

There was a distinct increase in the use of tests and other measurement devices during the fifties. Although a large majority of superintendents saw no great need to increase competition and academic pressures at the elementary level, they did indicate that it was desirable to use examinations to help teachers improve the quality of teaching and to help pupils improve the quality of learning experiences. Testing how well the learner had mastered assigned subject matter was deemed subordinate to the use of testing to help each child do the best he could to work at his level of ability.

Both standardized and teacher-made tests were more widely used in 1959 than in 1949. The findings suggested that many U. S. schools may be making a strenuous effort to evaluate their programs and to make improvements in any deficiencies that can be identified by tests.

An interesting aspect of the renaissance in testing was the increase in the use of essay-type examinations at the elementary level. A number of educational leaders appear to have taken seriously the statement that children need more opportunities to develop expressive skill through writing. Whatever the explanation, essay quizzes were in greater vogue in 1959 than they were 10 years earlier.

PUPIL GROUPINGS

So-called homogeneous grouping increased in popularity toward the close of the decade according to reports from the 183 school districts. In 1949-50 only a few schools had employed ability grouping. At the end of the decade its use had doubled. In some schools the plan had been extended downward to include the primary as well as the middle grades, although there were others who did not use it below grade 4.

Schools used a variety of means to determine how children should be placed in groups of slow, average, and fast learners. The most common criterions were intelligence test scores, achievement tests, and teachers' professional opinions.

The increase in ability grouping was perhaps the major evidence of conservative educational thought to be found among the trends in the several practices with which the survey was concerned. Since the proponents of progressive education have usually opposed homogeneous grouping, advocates of fundamental or basic education can take pleasure in an initial skirmish won!

The matter of administrator's

attitudes toward promotion policies is an exceedingly tricky one to interpret. In essence, none of the schools reported using the liberal policy which critics call "100 percent promotion." But essentialists who contend that children should not be promoted until they have mastered certain minimum essentials in a given grade can find little comfort in this survey. For, despite criticisms directed at liberal promotion practices, more than two-thirds of the 183 superintendents rejected the idea that progress through the grades should be governed solely by whether a child has completed prescribed, basic academic requirements as a requisite for advancement to a higher grade.

These administrators believed that few elementary-school children should repeat a grade and that their rate of progress largely should be decided on the basis of individual effort and ability rather than by success in conforming to group standards. It should be added that prevailing promotion policies in the 183 districts suggest that considerable success has attended efforts to help children stay with their agemates in school.

SPECIAL PROGRAMS

Special programs and provisions for the academically able child have increased sharply in recent years. In some schools there was a 200 percent increase in the number of special classes for fast learners. One may conclude from their reports that many superintendents are no longer confident that the needs of individual learners adequately can be met in heterogeneous or chance groupings. What this growing sentiment presages for the future is significant.

One group of questions dealt with whether U. S. schools should endeavor to provide basic literacy for all citizens or focus their efforts on academic programs designed to establish and maintain an intellectual elite. Despite the endemic interest expressed in improved programs and opportunities for intellectually superior children, majority opinion among superintendents strongly rejected any type of schooling structured to create an educational caste system in America. Educational leadership thus retains the long established point of view that no single group of American children is more worth educating than all children. At the same time these superintendents believe that mass public-school education must vary according to differences in pupils' mental ability so that we may preserve the quality of educational opportunity as well as maintain the quantity of schooling provided.

Despite the confusing educational storms created by 10 years of debate and reappraisal, school administrators are not floundering like beached whales. Instead, they appear to stand together with marked unanimity in their ideas as to what constitutes "good" education for all children. •

To Reestablish Communication with Our Friends

Skeptical Critics — Possible Allies?

ARCH LANG

In Educational Leadership

MY neighbor, Joe Albright, is an accountant by profession and a social critic by disposition. He reads history and biography and he keeps up with contemporary affairs through liberal magazines. On questions such as racial segregation, industrial strikes, and the United Nations, his opinions are critical and display social vision. In so many matters he has the same deep commitments as my educationist colleagues whom I think of as progressive and social-minded.

When it comes to school policy, however, the story is different. Joe is sympathetic to the pronouncements of the Council for Basic Education. He thinks the increased arithmetic homework which fourth graders now have in our town is all to the good. He doubts that children learn to read as well or as early as they should. He is for any proposal for increased emphasis on foreign language at any level. He is skeptical of emphasis on social studies, and he wonders if specialist subject teachers of science, history, and geography might not well be used in the elementary school. The high school he sees almost entirely in terms of college-preparatory and vocational-preparation courses. He thinks the case is obvious for separate classes by ability grouping, high promotion standards, and accelerated programs for bright youngsters. All of these things, to him, are ways to get trained intelligence.

It seems to me that there are many persons who think as Joe does. Because of their social vision they are to be highly valued. They are not reactionaries and they are friends of the public schools. But from the educational measures they recommend, it is evident that they and liberal professional educators are out of communication.

We educationists are engaged these days in a good deal of self-examination. As part of this process it seems worthwhile to try to locate some of the values which are shared by liberal educators and liberal citizens-at-large and search for differences in emphasis and interpretations.

1. *Concern for the common man and confidence in his potentials.* Educationists have long been

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guided by concern for the common man. However, we may sometimes appear to lack confidence in the potentials of children. We have been properly sensitive to the need for acceptance of children and for protecting them from situations where failure is unavoidable. Yet perhaps the pace of school work can be stepped up in many situations without getting into impossible drudgery of homework and without forcing children into failure. On the contrary, we may help children to discover what they can actually do with real satisfaction to them. We can use every sensitivity as to what particular children can do, with real confidence in their potential to do more than they would have done without the stimulus and resource of the teacher.

RESPECT FOR QUALITY

2. *Respect for high-quality performance.* In our concern for avoiding competitive pressures and arbitrary standards, we may have seemed to imply that quality in comparison to what others are doing or have done is of no value or importance. Yet do we really believe this or apply it in evaluating ourselves and other adults? In school we should be able to recognize and honor superior performance without subjecting children to the climate of a competitive rat-race. One help in doing this will be to continue to insist that there are many varieties of excellence and that intellectual performance is not the only kind to be honored.

3. *Respect for intellectual performance.* On this point we do one of our poorest jobs of communicating with the Joe Albrights. Joe's own sense of achievement and self-esteem is bound up with the fact that he has made a career and got recognition through brainwork. While he opposes social tendencies toward a power elite, he is sympathetic toward the idea of an intellectual elite (whether he uses just this phrase or not), provided the intellectuals neither try to grab for power nor let themselves be used by power interests.

We educationists are perhaps less single-minded in the matter than Joe is. We have so often resisted the idea that the function of the school is primarily intellectual. The reasons have been valid: the narrower intellectual emphasis in the past, the variety of abilities, the need of all-round development, the concern for acceptance and success of nonintellectual children, the practical emphasis of American culture, and the fear of using the schools to develop a social elite.

But have we perhaps overdone the matter? Educationists are intellectuals, too — of a particular kind certainly, but nevertheless people who make their careers with their brains. We know that if the schools are to be more effective, they must have more support and teachers must have more status and recognition. Should we not forthrightly recognize the preponderant intellectual orientation that does exist in schools and

among schoolmen? We can encourage and recognize intellectual performance without discarding the gains which have been made in providing for all children of whatever abilities. Our ability to encourage and accept freely the potentials of intellectual children is perhaps bound closely to our ability to accept ourselves in our intellectual capacities.

CONFORMITY

4. *Opposition to tendencies which make for conformity and loss of individuality.* On this value educationists should find no conflict with the Joe Albrights. We do need to recognize the pressures from the organized complexity of society, the sheer mass of children with whom we deal, and the tendencies toward bureaucracy in every large organization, including the schools. Concern for individual development has been paramount among American educators and we should keep saying so. We have emphasized group activity as a way the individual can find himself and express himself in a social setting. We need to continue to emphasize this goal at every opportunity, and continually examine and evaluate our group techniques in the light of the goal. This is the best insurance against slipping into a conformity routine.

5. *Determination to take account of changing realities; mistrust of orthodoxies.* Joe is hardheaded. He tries hard to distinguish the factual from the fatuous. In all of this, educationists should have no quarrel with him. The problems of education will require plenty of hardheadedness as well as devotion to ideals.

The distorted stereotypes of progressive education have given Joe cause to wonder whether educationists are realistic or whether they are defenders of a new orthodoxy. There may—over the years—have been some basis for his suspicions. Yet the antidote to distortion is clear information. If the educationists of the 1960's are a more hardheaded lot, they can exhibit the fact by seeing to it that information about the schools is accurate and by avoiding clichés and vagueness. Joe will respect people who state their goals unmistakably and then lay out the difficulties and what they propose to do about them.

It is certain that educational changes will be indicated by new knowledge and new circumstances. Those of us who do not cringe at the thought of being "progressive" can, in principle at least, welcome the prospect of replacing some of our most cherished ideas by new and better ones. Nothing less will serve the present by serving the children of the time. •

IF you keep your mind sufficiently open, people will throw a lot of rubbish into it.—*William A. Orton.*

Is Marriage the Beginning of Adulthood?

Adolescence and the Postponement of Adulthood

ROBERT J. HAVIGHURST
In The School Review

ADOLESCENCE, the transition from childhood to adulthood, consists of a biological constant and a cultural variable. The biological constant is the period of puberty, from about 12 to 16 years of age, when the boy or the girl develops into the biologically adult male or female. The timing of puberty varies little under changing conditions. The cultural variable is remarkably varied.

In one society, marriage may come close to the end of puberty, at 15 or 16 years of age, and the boy may move into the girl's home. There the young couple gradually learn to become responsible parents and workers. For them, adolescence may last another five or 10 years, being completed when they move into a house of their own. In another society, marriage for the man may not come until he is in his 30's and has an established livelihood and a house for his bride. In this case adolescence closes with a late marriage.

Marriage does not necessarily mark the end of adolescence. Self-support and the establishment of a separate home are surer signs of the beginning of adulthood.

In contemporary America, marriage is often one of the events of

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Reported from The School Review, *LXVIII (Spring 1960), 52-62.*

adolescence rather than the end of adolescence. The most useful social definition of the end of adolescence in this country today is that of selfsupport. The most useful psychological definition is that of the establishment or achievement of a sense of personal identity.

In a complex modern society such as that of the United States, there is a great deal of variety in the ending of adolescence and the beginning of adulthood—variety between social classes and even among individuals of the same social class. There is also a rapid change in this phenomenon.

Since 1900 there has been a general tendency toward the postponement of adulthood. This tendency is part of the massive movement of modern society toward industrialization and urbanization and is the cause of some of the major maladjustments in our

modern society, including the disease of juvenile delinquency.

THREE GROUPS OF YOUTH

Young people can be divided into three groups according to their experiences of moving into adulthood. The first group is made up of those who follow a long course of educational training before they become selfsupporting. These are the young people who take a four-year college course, at least. Today, in increasing numbers, they go into graduate and professional schools which keep them in a student role until they are 25 or later.

A considerable number of these young people are now marrying in their early twenties. This is probably a useful adaptation to adjust the disparity between biological and cultural realities. These young people, at some stages, may have to cope with some feelings of uncertainty and insecurity, but as a result they may become persons with a complex and stable identity that is well adapted to modern society.

The second, and much the largest group at present, consists mainly of those who complete secondary school and then go to work. This group makes a gradual entry into adult roles between the ages of 17 and 20. For these, a three-year to five-year postponement of adulthood is easily tolerated as long as the young person is taking steps that surely lead to it, such as apprenticeship to a trade, a steady job with promotion, engagement to be married.

In a modern society, this type of progress to adulthood would seem to be the easiest, although it is gained perhaps at the expense of individuality, drive, and other upper-middle-class virtues.

The third group consists of boys and girls who find the path to adulthood blocked and experience great difficulty in achieving responsible adulthood. In this group lies most of the social pathology of youth today. These boys and girls generally drop out of school at the age of 15 or 16 after a history of failure, of frustration, and frequently of bad behavior. Maladjusted to school, many of them are also maladjusted to work and family life, and make little progress toward responsible adulthood.

VALUES

Any conclusions about the present condition of youth must be based on an affirmation of values. The following seem most relevant:

1. There is value in a productive adult life as a worker, parent, and citizen. Adulthood should be started fairly early in life, but age 25 or 30 is not too late for a person who will lead a complex life. A high proportion of young people will live to be 65 or 70 and will have a 40-year adult career, even if they start as late as 25 or 30.

2. There is value in a self-directed and selfdefined life. In a complex modern society, a person with high ability is likely to require time to establish his identity and

to prepare himself to fill the roles he defines for himself.

3. There is value in adolescence as well as in adulthood. For many young people a long, slow adolescence is a period of great happiness. In an economy of abundance, there is no great social need for young people to cut short their adolescence in order to contribute to the economy.

4. There is value in growth toward adulthood. No one can be satisfied with stagnation during adolescence. Young people need assurance that they are growing up, even though growth is slow and complex.

5. There is value in physical sexual fulfilment, and this value is found most fully within marriage. Consequently, early marriage may very well be a part of adolescence rather than a mark of its termination for young people who need a long time to prepare for roles other than the family roles.

VALUES APPLIED

The following conclusions flow from the application of these values to the present-day situation of youth in the United States.

Educational preparation may be profitably accelerated for that small group who will need three or more years of study in a graduate or professional school. These young people might well enter college a year early or do work of college level in secondary school to save time for their later education.

Marriage should be approved at age 20 to 25 for those young people who will need to study until age 25 or 30. However, many of these young people can successfully sublimate their biological impulses and enrich their adolescent life and their adult life thereby.

The great majority of youth, who today complete secondary school and then go to work, suffer no difficulties because of the postponement of social adulthood for three to five years after they achieve biological adulthood. This period of growth into adulthood seems appropriate to them personally and desirable from the point of view of the welfare of society. During the period of adolescence, educators and religious leaders should seek to help this group become more selfdirected, more clear about their places and their goals in life.

There is a group of young people—8 to 10 percent of youth, more boys than girls—who find the pathway to adulthood blocked. They are failures in school and failures in the world of juvenile work. This is the group which represents a serious social problem for modern society. Juvenile delinquency is heavily concentrated in this group. School and society must somehow find a way to open the pathway to growth for them. The ordinary school and even the special school for maladjusted youth have failed to find the solution. The families of these boys and girls have failed them. This is a problem that requires radical efforts for its solution. •

The Domination of Graduate Schools

Let's Free Liberal-Arts Teaching

EARL J. MCGRATH

In NEA Journal

THE institutions responsible for providing liberal education are falling down on the job. Furthermore, the question may be raised whether, without drastic reversals of policy, liberal education can be generally reestablished in the colleges and universities of the United States. The present shortcomings of liberal-arts colleges cannot be corrected until the coercive power of the graduate facilities over these institutions is exposed to public view and then ameliorated.

Today the supremacy of graduate education with its emphasis on research and the transmission of specialized knowledge has transformed and distorted the American academic community. The mores, the administrative organization, the rewards of academic life, the very tissue of the academic organization have been so altered that liberal-arts colleges have ceased to have a distinctive existence or mission. Worse, they are no longer free to determine the policies governing the education of their own students.

The graduate faculties are largely responsible for the present shortage of college teachers. But this has not been their sole adverse effect on liberal-arts colleges. By transforming liberal-arts colleges from institutions for general education into agencies for the initial vocational education of scholars, the graduate schools, in a measure, deny society the services which the colleges ought to perform. They produce college teachers prepared, not primarily for their chosen work, but rather for research activities of a limited character. Further, they consistently oppose, often with shocking success, the attempts of liberal-arts colleges to resume the time-honored function of providing a general education for youth, regardless of their vocational objectives. But, most important, they have splintered the corporate body which once was the liberal-arts college into small and often completely unrelated departmental units. They have thus transformed the unified college curriculum into an agglomeration of subjects typically assembled in meaningless patterns according to the whims of

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students or (more commonly) of their departmentally loyal advisers.

No panacea exists for the deepening shortage of college teachers. If, however, graduate schools would now begin to make necessary changes in their policies and practices, they could considerably ameliorate a situation which otherwise will severely debilitate American life. The graduate schools should begin at once to provide programs for prospective teachers that are somewhat different from those for other graduate students who expect to make research their primary work and who have a demonstrable aptitude for and interest therein. They should take steps to broaden the education of future college teachers. Under present conditions, the customs, if not the rules and regulations, of graduate faculties normally confine the prospective college teacher to a severely limited range of learning and thus prevent his being educated for his future professional duties. The result of such learning is an individual inadequately prepared for the normal teaching obligations of a faculty member in a liberal-arts college and, regretably, a person often conditioned by his graduate experiences to view these duties as necessary evils endured for the privilege of teaching advanced courses and doing research.

The graduate school should require that future college teachers attend a seminar for at least one academic year, preferably the last in graduate school, to gain an understanding of the whole enterprise of higher education and the place of their own work in it. They should require that prospective teachers serve an apprenticeship in a college classroom under the supervision of an accomplished teacher before assuming sole responsibility for instruction.

Until the studies, the research experience, and the dissertation required by the graduate faculty are such as to enable many more students to extend their graduate experience beyond the boundaries of a single discipline, colleges cannot hope to obtain nearly enough of the kinds of teachers needed.

INSTRUCTION NEEDED

A mere stringing of the beads of unrelated courses in the natural sciences, the social sciences, or the humanities along a curriculum thread will, however, be little better preparation for the college teacher than the present piling up of blocks of specialized courses in a single discipline. What is required is instruction which causes the student to see and to understand the relations between the facts and theories of various subject matters and, thus, to gain a comprehensive knowledge of the structure of learning and the complex conditions of life. Scholarship in this case means knowing a subject broadly and being able to see the relationships and the philosophical significance of new knowledge as it is produced.

Proposals made here for the reform of graduate education for college teachers are neither radical nor new. From the beginning of graduate work in the United States, many of the ablest, most gifted research scholars have recognized the basic difference between the activities of research and those of college teaching. They were convinced that the education of college students would be increasingly neglected or damaged by the effects of the partial and misdirected purposes of graduate education. The fears of these prescient educational statesmen have been realized beyond their predictions.

No thoughtful person would deny the incalculable contribution of research to our national life. But the education of our people for the intelligent discharge of their responsibilities in all the manifold spheres of living can hardly be given a lower value. Yet it is the consensus of many thoughtful observers that the general education of citizens has been sacrificed to the training of research workers and the propagation of the specialized knowledge they produce.

Through the dominance of graduate education, the colleges of liberal arts have virtually lost their right of selfdetermination and their programs have become distorted and often aimless. If they can now be freed from such dominance, they can accomplish their desirable aims. Under the proper conditions of work and compensation, college faculty members could again dedicate themselves to undergraduate teaching. The internal conflicts among departmental interests, which have increasingly divided liberal education, would be resolved within the larger purpose of providing both general education for citizenship and special education for work. Concomitantly, graduate schools would be able to devote their efforts more effectively to the two equally demanding but somewhat different responsibilities of educating college teachers and training investigators.

The history of education has shown that when an established institution fails to satisfy an emerging social need, another agency either already in existence or newly established for the purpose fills the vacuum created by indifference or negligence. Whether those now responsible for the education of college teachers will have the understanding and the enterprise to meet the demands of the hour is a question only they can answer.

If the graduate schools do not deal expeditiously and understandingly with this problem, the teachers colleges will do so. •

HARDENING of the mind may be harder on a person than hardening of the arteries.—Frank Miles in *Midland Schools*.

If Your Nerves Aren't Jumpy, Enter

My Museum of Morbid English

ROBERT L. COARD
In The Journal of Higher Education

A COLLEGE registrar, chuckling heartily, pulled out a letter he had received from a prospective student, handed it to me, and triumphantly said, "Read that." Well, I had to admit that the letter wasn't very good, for it began with the salutation "Dear Sir, or Madame?" and went on to misspell *college* repeatedly as *collage*. But this registrar's naive belief that a teacher of freshman composition courses in college could be shocked by written blunders amused me greatly. One might as well try to startle a medical pathologist by showing him a corpse. That registrar ought to step inside my own Museum of Morbid English and examine the diseased specimens I've accumulated in a decade of reading freshman compositions.

If your nerves aren't jumpy, let's enter my Museum and begin the tour by inspecting the showcase labeled "Confused Words." You will come across this ambiguous specimen contributed by an exuberant 18-year-old boy: "Once I had a date and had to brake it." His offering is matched by that of a teen-age girl who argued that "capital punishment should not be used in the training of little children."

One teacher gleefully told me of a student who declared he was

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"taking a partition to the dean." Now I find the *partition-petition* mix-up rather old hat, though I do keep a few specimens in the Museum of Morbid English. I prefer one about the students who climbed a petition: " . . . the boys began sneaking into the room next to the library, which was set off by a petition about eight feet tall."

Although it carries such standard items, my Museum naturally takes greater pride in the more spectacular pathologies. For example, not every museum can boast of a *scholastic-socialistic* confusion. In a data sheet accompanying his letter of application, a student had a division entitled "Socialistic and Athletic Honors." I doubt if he could get a job these days!

I have, of course, a large collection called "Typewriter Betrayals," where *six* so often comes out *sex*, as in "There were sex cruisers in the Battle of Savo Island." But one can't be too harsh on "Typewriter Betrayals" of students. I remember eating for many months

in a restaurant which featured on its menu a strange dish called "candid yams."

I have in my Museum a "Department of Mutilated Dates and Altered Statistics." Here I learn from a student that he "came to the University on Sept. 6, 195" and doesn't add whether this early arrival was A.D. or B.C. As with dates, so with statistics. If one student is correct, Napoleon may have lost to the Russians because he didn't bring along enough men: "Napoleon's army was made up of nearly 1100 soldiers."

Some startling examples are to be found in my "Strained Parts of Speech" division. The noun *satire* has slipped across the line in "Hawthorne in his story 'Earth Holocaust' satires Emerson's idea of books." And *defect* switches from a noun to a verb in this specimen: "Privilege to print any material greatly defected the magazine."

Word creation also is a talent of freshmen but seems not to be appreciated. For example, a student coins *writenly* so that he could say "orally and writenly."

Even a brief tour of the Museum of Morbid English should include a short halt at the "Verb-Virus" display, where strange and fascinating tense infections are on exhibit. A few specimens of verb disease gathered from underclassmen's prose will catch the eye of even the hurried observer: " . . . but Thoreau only teached for the money"; and "I believe that Melville based the book on this voyage as he seened it after 10 years."

As the visitor passes the spelling cases in the Museum, he will notice one labeled "Drastic Spelling Reform." Here the freshmen have seized on the silent letters of the English orthography and simply thrown them out, as in *tomaine*. Then there is a display called "Surplus Words." The freshman fondness for using the unnecessary word rises to great heights in the sentence "We realized she has married into poor poverty." The "Dangling Verbal" collection yields some rich varieties of morbidity. Here is one I cherish: "The hot chile and warmed up crackers really hit the spot after having sat at a football game over two hours."

I also have a "Manuscript Collection." In the showcases are to be found themes with slanting edges, scalloped edges, jagged edges, and edges as frilly as an old-fashioned valentine. The paper on which the themes are written also offers abundant variety. There is even a composition on "My Allergy" laboriously typed out on Kleenex!

If the teacher spends much of his time in the autumn and winter working in the Museum of Morbid English, as the instructor of freshmen necessarily does, he is indeed ready for the coming of spring, with its promise of golden vacation days. Or, as a student phrased it more picturesquely in connection with another matter " . . . there is one constellation, come spring and we'll thaw out"! •

1960

To Measure General Knowledge

The Rearrangement Test

EDWARD E. CURETON

In Educational and Psychological Measurement

THE rearrangement test, sometimes also called the continuity test, is useful in measuring students' *general knowledge*. This is done when the student is asked to place in *order* any series of persons, objects, events, operations, or concepts which actually do have an order with respect to some attribute. An example from geography follows:

The 10 largest cities in the United States are listed below in alphabetical order. Write a 1 before the largest, a 2 before the next largest, etc., ending with a 10 before the smallest.

KEY			Difference
7	4	Boston	3
2	2	Chicago	0
5	8	Detroit	3
4	3	Los Angeles	1
10	5	New Orleans	5
1	1	New York	0
3	6	Philadelphia	3
9	7	Pittsburgh	2
8	10	San Francisco	2
6	9	St. Louis	3
		Sum	22

Score = 3 (from table)

There are many other uses for this type of test.

1. In history: arrange a series of persons or events in chronological order. In a comprehensive test the persons or events may be from different countries, continents, or cultures.

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2. In art: arrange a series of pictures in order of artistic merit, either in general or in terms of some specific element such as color, symmetry, balance, etc.

3. In biology: arrange a series of particular plants or animals in the order of complexity of some characteristic.

4. In manual arts: arrange the operations of a job in the order in which they should be performed.

5. In English literature: arrange a series of incidents in the order in which they occur in a given work.

These examples are merely illustrative. A teacher of almost any subject will readily think of several others which apply to his field of instruction.

The main deterrent to the wider use of the rearrangement tests has been the difficulty of scoring. It is easily shown that the score cannot be the number of items for which the student's rank and the key rank agree. Consider a key order and the rankings of three students.

Key	Student A	B	C
1	2	6	2
2	1	2	1
3	3	3	4
4	4	4	3
5	5	5	6
6	6	1	5
No. Correct	4	4	0
Score	5	1	3

Student A has one interchange of two adjacent ranks, with four ranks correct. The error is so small that his score should be 5 (out of 6) rather than 4. Student B also has one interchange, with four ranks correct. But he has interchanged the highest rank with the lowest. This error is so large that his proper score is 1 rather than 4. Student C has interchanged ranks 1 and 2, 3 and 4, and 5 and 6, so that none of his ranks agree with the key ranks. But all three of his errors are small, and the three pairs of interchanged ranks are in the correct order. He should receive half credit (score 3) for this arrangement.

The score should be a function of the correlation between the key ranking and the student's ranking. It should be maximum (equal to the number of items ranked) when the agreement is perfect or almost perfect. It should be 0 whenever the agreement is random or worse. A scoring table could be built on either the Spearman or the Kendall rank correlation procedure, but in either case the preliminary work required of the scorer would be too great.

The accompanying scoring table is based on the Spearman Footrule. This is the simplest of all methods based entirely on considerations of agreement between two rank orders, and it is sufficiently sensitive and accurate for the present purpose. The directions are given at the bottom. The table covers rearrangements of any number of items from three to 10.

SCORING TABLE FOR THE REARRANGEMENT TEST

Score	Number of Items Ranked 3	4	5	6	7	8	9	10 11
9							1	5
8						1	5	9
7					1	3	7	11
6				1	3	7	11	15
5			1	3	5	9	13	19
4		1	3	5	9	11	17	21
3	1	1	5	7	11	15	19	25
2	1	3	5	9	13	17	23	29
1	3	5	7	11	15	19	25	31
0								

Directions: 1. Match the key against the examinee's answers. For each item, write the difference (without regard to sign) between the key rank and the examinee's rank. Add the differences and record the sum. Every such sum must be 0 or an even number.

2. In the column headed by the number of items ranked, find a horizontal line with a number smaller than the sum above it and a number larger than the sum below it. (The table contains only odd numbers, so no tabled number can equal a sum.) The number at the end of the line is the score.

3. If the sum is less than the figure at the top of the column, the score is the number of items ranked. If the sum is greater than the figure at the bottom of the column, the score is 0.

Implications Derived from a Foreign Study

Instruction in Lower-Grade Arithmetic in England, Scotland — and the U.S.

WILLIAM A. BROWNELL

In The Arithmetic Teacher

THE first two weeks of June 1959, I spent in the publicly maintained schools of England and Scotland. My purpose was to see for myself what is being done in these schools in introducing children to arithmetic and in carrying them in this subject through the first four to six grades. Obviously, two weeks is much too short a time for a thoroughgoing "investigation." Nevertheless, two weeks were long enough to reveal certain facts and to raise certain questions that may be of interest to those who are concerned with arithmetic instruction in American schools.

It is probably important to start by making this comment: In American educational research, with its emphasis on large populations and its excessive reliance on the control-group technique, it frequently is forgotten that a single instance may be enough to establish something as a fact. In this present context, I am accepting as facts the things which I myself saw. Even if the particular "facts" had not been verified by observations in several places—in other words, even if what I saw had happened only once and in a single place—the phenomenons would still be valid and could justify the drawing of certain conclusions. My three conclusions, as I shall express them, will be stated in terms of their relevance to arithmetic instruction in the lower grades of American schools.

1. *We have seriously underestimated the attention span of school beginners.*

In American schools the primary-grade program (and not alone the part devoted to arithmetic) is based on the notion that beginners cannot remain interested in anything and keep their attention thereon for more than a relatively few minutes at a time—say 15, or 20, or 30 minutes.

In the English and Scottish schools I saw Infant School children working happily, busily, and effectively at number tasks throughout periods of an hour or more. It is hardly reasonable to suppose that

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in respect to attention span American children are inherently or biologically less well endowed than are British children. If it be granted that this hypothesis is untenable, then we should be able in American schools to duplicate—*if we wish*—the conditions that prevail in British schools and teach school beginners for longer periods of time.

THE READINESS QUESTION

2. *Likewise, we have seriously underrated the "readiness" of school beginners for systematic work in arithmetic.*

Even though we hear it less commonly than we did a few years ago, we are still being told by some that school beginners are "unready" for arithmetic—that they don't need arithmetic and are incapable of learning it because of its difficulty. It is not to our credit that so many have believed these statements and have acquiesced in the postponement of systematic instruction to grade 2, or even later.

In the English and Scottish schools there has never been much doubt about the "readiness" of children for systematic instruction, and not at age six and a half or eight or later, but at age five. What I myself witnessed convinced me that the view of "readiness" entertained by the British is entirely realisic. It is to be supposed that American school beginners are as "ready" for arithmetic as are Scottish and English children and that we can act accordingly *if we wish.*

3. *We can safely ask children in the lower grades to learn much more in arithmetic than we are now asking them to learn.*

Because of the drift away from arithmetic in the lower grades characteristic of American school curriculums some years ago, we have been slow to build up a challenging program in the first three or four grades. Why try to do so when no one would "buy" such a "stiff" program? Accordingly, the pace of instruction has lagged, and reteaching has exceeded any reasonable limits of necessity. Fearing that arithmetic may be "too hard" for children in the first two grades, for example, we have been satisfied when, in two years, they have some degree of mastery of the addition and subtraction facts to, say, 12 or 15. We have done little, if anything, about developing ideas about the processes of multiplication and division, to say nothing of teaching some of the simple number facts in these processes. Despite evidence that school beginners already know much about fractions, we have done little or nothing to extend their understanding of basic concepts, and have avoided even the simplest computation with fractions (e.g., the addition and subtraction of like fractions). Indeed, computation, even with whole numbers, has been pretty much tabooed.

Meanwhile, teachers in England and Scotland, whether following experimental or nonexperimental programs, have gone ahead teaching things in arithmetic which we in

America *know* young children cannot learn! From what I observed in British schools, I am convinced that we can teach more arithmetic than we now teach in the first few grades, and teach it faster, *if we wish* to do so.

Other criterions than ability to learn must, of course, be taken into account. Demonstrated ability to learn something does not mean that we *must* teach it. Recognition of this fact is the reason why in each of the foregoing three numbered sections the phrase "if we wish" was included as a necessary caution. True, English and Scottish children in the first grades are learning more arithmetic than are American children; it does not follow that American children must on that account be confronted with more demanding tasks and sooner. Before a decision can be made in this matter, answers have to be found for several critical questions, of which I shall raise three.

RELATIVE IMPORTANCE

1. *How important is arithmetic in the elementary curriculum?*

When in this country elementary teachers must teach not only arithmetic but also reading, spelling, writing, oral and written composition, social studies, science, art, and music, how much time can be given to arithmetic? Is 30 minutes a day in grade 3, for example, as far as we can go? In the British schools I visited, this time was greatly exceeded—doubled and even tripled. In these schools, quite obviously, arithmetic was given top priority among all the subjects in the elementary curriculum.

There is no question here about the value of arithmetic. The question is, rather, the relative importance of arithmetic. This question is not to be answered by you or by me, or by mathematicians, or by any group of persons viewed as having vested interests. Nor is it answerable by traditional kinds of quantitative research. It involves values, and so, the exercise of judgment, and the judgment of many people. If the decision is that we are now putting as much emphasis as we should on arithmetic, then the time allocation will remain about what it is, and our only hope is the more effective use of the time we have. We can accomplish something in these circumstances, but we could accomplish more if we had more time. It is my belief that we shall be given additional time; but we are more likely to get that extra time if we stress the importance of arithmetic rather than the unsatisfactory results of our present efforts.

CONFLICTING DOCTRINES

2. *Should we, or should we not, undertake to develop in young children the mature kinds of mathematical skills and relationships which I saw being taught in some of the British experimental schools I visited?*

To make this question more concrete, should we, or should we not, try to teach eight-year-olds how

to simplify such expressions as $X^2 + 6X + 8 = ?$ Americans objecting to teaching mathematical ideas and skills of this kind would probably represent the Doctrine of Social Utility. ("Is it demonstrably useful?") The Englishmen and Scots would be little disturbed about such ideas and skills being, or not being, practically useful and would argue for them in language suggestive of a firm faith in the Discipline of Formal Discipline—"They train the power of reasoning and the faculty of concentration."

These two positions have been deliberately worded in their extreme form. While they represent conflicting positions we can capitalize on what is valuable in each. Some such reconciliation must be worked out if we are to make any progress in determining just what mathematical ideas and skills commonly taught in the later grades can be moved to lower grades and what ideas and skills not generally included in school arithmetic should be introduced into the program. Enough of the negative aspect of the Doctrine of Social Utility can be retained to prevent upheavals in the arithmetic program, at the same time that we prepare ourselves to accept and welcome a more moderate array of changes that will stress the mathematics of arithmetic more than has been customary.

NEW METHODS NEEDED?

3. *In order to achieve what we may desire by way of a changed arithmetic program, to what extent need we substitute radically new materials and methods for those in common use?*

I saw some very unusual accomplishments of certain classes of very young children in English and Scottish schools. These classes were taught with new materials and methods. The inference might be that the out-of-the-ordinary performances of the pupils observed are to be attributed wholly to these materials and methods. This is not the case, however. These experimental classes were taught for longer periods by teachers fired with enthusiasm for change. And these teachers were seeking goals unlike those of the nonexperimental teachers.

I am certainly advocating no policy of complacency in saying the emerging arithmetic program will call for no wholesale abandonment of materials and methods now in general use. Of course, some changes are inevitable and will prove to be desirable; but they need not be revolutionary. At any rate, the first step is not to adopt a radically new system, however good. The first step *is* to decide on objectives of instruction and probably on the amount of time to be given arithmetic. Then, and only then, is it appropriate to consider changes in materials and methods. It is my judgment that currently popular systems, when modified in certain respects, will be found wholly adequate for the new arithmetic. •

Learning about Our Southern Neighbors

Latin-American Life: A Proposal for Junior-High and Senior-High Schools

JAMES HIGH
In Social Education

WE are likely to refer to St. Augustine as the oldest city in America. There are, however, a hundred older ones still in existence. All the really old homes built by Europeans in America—that is, all the sixteenth-century homes—are in Latin America, in the Caribbean Islands, in Mexico, Panama, Bogata, Asuncion, Santiago, Bahia—and not in Jamestown or Boston or Philadelphia or Charleston. In 1800, a quarter of a century after the American Revolution, 10 of the 12 largest cities in the Western Hemisphere were in Latin America.

These interesting and surprising facts represent a sample of what may be learned about our important southern neighbors. It is unfortunate that many books on Latin America give little attention to an objective and scientific examination of the more than four centuries of Latin culture as it has flowered in the New World. It is often the case that textbooks and courses in Latin-American history emphasize the Spanish colonial period with a distorted sense of Anglo-Saxon justice — spurious moralization concerning the cruelty and barbarity of the conquistadores. Cortez and Pizarro are most often depicted as brutal and vicious exploiters of a noble race which was unfortunate enough to have an ancestral store of riches to be plundered. Here the story usually departs from all objectivity, or it stops altogether, in an extended requiem for the departed glories of the Inca, apostles of peace, and the Aztec, nature's most noble refinement. Next, most attention is usually given to the sad plight of the modern underfed, exploited, and downtrodden peasant population of South and Central America.

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It is the purpose of education to encourage students to learn facts and relationships in view of their need to make wise choices and decisions. Practically applied in the case of Latin America, every United States citizen should be able and willing to further the aims of cooperation and understanding among all the peoples of the Western Hemisphere. In order to do this, it is indispensable that all Americans learn what they can—

and as objectively as they can—about each other.

First of all, it is necessary to sweep away the sins of omission and obfuscation concerning knowledge of the score of independent nations south of the Rio Grande. This is a time to cultivate knowledge of Latin America in a balanced perspective and in a spirit of good will toward all Americans. It is the only hope for a very much needed solidarity in the present-day New World when alignments are daily being made to undermine the strength and effectiveness of American democracy and economic policy. For reasons of practical politics, general cultural cooperation, economic selfinterest, and plain decency, Americans should—and can—learn in school something about their Latin friends—while they are still friends.

Elementary-school placement of certain Latin-American topics has been common for some time, especially concerning Mexico. In junior-high school there is often some treatment of Latin America, sometimes in conjunction with the rest of the neighboring parts of the Western Hemisphere. Such topics often appear in the seventh grade and are usually combination efforts in geography, history, and social customs. Less frequently, Latin-American history or geography will be taught in a higher grade, from 9 to 12, or as a part of a lower-division college course in the history of the Americas. There is no reason why Latin-American history and geography cannot be an elective course at any of these levels. In line with the philosophy of social studies generally accepted in the United States, any grade in the secondary complex could well be supplemented in this way for students who wish to enhance their minimum requirements or who are in some kind of accelerated program and need more elective courses in social studies.

In teaching Latin-American appreciation in secondary school, the most important asset the teacher might have, after mastery of the subject, is an attitude of objectivity and sympathy toward learning the facts and relationships of this vast and diverse population stemming from Latin and Indian origins. The area is more than twice as large as the United States and the population is roughly equal to that of Anglo-America. Possibly the best way to approach such an objective is through a biographical examination of figures who have contributed during the past four centuries to the establishment and development of the 20 nations now existing there.

Certain high points, as in all cultures, have been reached in the course of Latin-American growth, and a balanced selection from these, as represented in the lives of outstanding personages, will give a vital framework to any series of discussions about the important episodes. Woven into this fabric are the threads of geography, ethnology, politics, and economics. •

When to "Step Out" and When to "Step In"

Levels of Discussion in Reading

NILA BANTON SMITH

In Education

READING content is one of the most productive mediums to use in developing thinking abilities through discussion. Are we making the fullest use of this medium for this purpose? Are we conducting discussions at a level which is too low, in many instances, to stimulate real thinking on the part of boys and girls? Are we, too often, simply asking them to repeat, parrot-like, what is said in the book rather than guiding discussion in ways which will encourage them to probe for deeper meanings and to evaluate critically?

Let me present an example to illustrate guidance directed toward literal comprehension—the lowest rung of the ladder of discussion possibilities insofar as stimulation of thinking is concerned:

The children are reading a story about two children and their toys. "With what was Ann playing?" asks the teacher. "Ann was playing with her doll," comes the answer. And this statement is given in so many words in the text.

Questions of this type require only slight mental activity on the part of the teacher and little or no thinking on the part of the pupils. Such questions undoubtedly give children practice in recalling and reproducing statements or facts and have a place in detailed factual reading. It is doubtful, on the other hand, whether this form of questioning helps children to develop the ability to glean the types of meanings from reading that they need to enrich their lives to the fullest extent.

Children often become so glib in answering this reproduction type of question that they may convey the impression of having achieved a high degree of excellence in "comprehension." Consider the case of Larry—a 13-year-old boy who recently was sent to the writer for diagnosis. He had above-average intelligence and was considered a "very good reader," but he was failing in other studies. As a part of the diagnosis, the boy was asked to read the story of Johnny Appleseed. A class of graduate students observed and read the story also. When Larry had finished, he was asked several questions which could be answered by restating what had been said directly in the text:

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"How long ago did Johnny Appleseed live?"

"More than a hundred years ago."

"What was his real name?"

"Jonathan Chapman."

"How did he spend his time?"

"He planted apple trees."

These and additional questions of the reproduction type were asked, and Larry answered all of them unerringly in the words of the book.

"Do you think Larry needs help in comprehension?" the graduate class was asked.

"No," came the unanimous response, "his comprehension is perfect!"

Larry had been checked on his literal comprehension, but the discussion had been extremely limited. What happened when he was asked some questions at a higher level of comprehension—in other words, questions which called for interpretation of meanings not stated directly in the text?

"Why did Johnny choose to plant his trees deep in the wilderness where the settlers had not yet come?"

"He wanted to be alone while he was working," Larry replied.

Larry had missed an important implication in drawing this conclusion. Johnny's real reason for planting trees before the settlers arrived was, of course, so that the trees would grow and bear fruit by the time the settlers moved in. Larry's reason made Johnny an unsocial person who didn't want anyone around him while he was working.

Several other questions of the thinking type were asked. Larry's replies to all of them were equally faulty.

Larry is only one out of hundreds of intelligent pupils who learn the superficial knack of giving back what the text says, but who never tap the significance of meanings which can be gleaned only through the use of mental processes of a higher type.

One of the most productive ways of developing ability to derive meanings in reading is through discussion in which the teacher makes a special contribution by throwing in questions here and there, questions which stimulate cause-and-effect reasoning and which point up the necessity for making comparisons, drawing inferences, arriving at conclusions, and gathering generalizations. With the wise teacher's help, deeper meanings emerge from the printed page, and the real significance of the printed symbols becomes fully apparent.

Critical reading is another aspect of the reading-for-meanings area of development—an aspect which requires carefully guided discussion. Critical reading makes use of both literal comprehension and interpretation. It involves both getting the facts and interpreting deeper meanings. In addition, it calls for the personal judgment of the reader in deciding on the validity of the material.

In critical reading, the reader evaluates and passes judgment on the purpose, the fairmindedness,

the bias, and the truthfulness of statements made in the text. Here is a simple but very satisfying example of what we mean.

Tommy, a second-grader, was reading these statements in some arithmetic material that he was given:

"Nancy went to the store to get some milk. Milk was 12 cents a quart. She got two quarts. How much did she pay for it?"

Tommy stopped short. "There's something wrong here," he said. "Milk costs more than 12 cents. I paid 21 cents for a quart at our store yesterday."

Tommy was doing some critical reading. It is a skill on which much more emphasis should be placed, especially in this age when so many attempts are being made to influence our thinking through the use of printed material. Youth should be taught to look for slants and biases and tricks of propagandists so that they will be in a position to judge the validity of statements which they read in all printed material.

In the primary grades, we need to rely largely on guided discussions of books children use in the classroom. However, more direct work can be done in the upper grades not only with books used in the classroom but also with materials brought in from the outside. Children can bring to class newspapers from different publishers. They can compare several reports of the same event and note the variations. The teacher can encourage spirited discussion as the children pick out statements which they think are the facts. The same procedure can be used with magazine articles, pamphlets, books, an advertisement, or an excerpt from a speech made during a political campaign. There should be free discussion concerning the writer's motive and the techniques that he used to accomplish his purpose.

We have intended here to emphasize the urgency of developing children's ability to enter into mental action and reaction with meanings embedded in printed symbols, both those that are immediately apparent and those that lurk between the lines of type. Further, we have tried to point out that on-the-spot discussion, guided by a skillful teacher, is probably one of the best mediums which can be used for the purpose. The teacher, however, must prepare carefully for any discussion. She must be ready with sagacious questions and remarks; ready to follow and guide discussions into worthwhile channels; ready to "step out" when the children are taking over in ways that are truly conducive to growth in their thinking processes; and ready to "step in" when a question will stimulate further mental activity or when a remark will afford subtle guidance in arriving at a sound judgment.

Discussion of reading content under such conditions well may result in the fullest realization of Edward Thorndike's terse but significant definition of some years back: "Reading is thinking." •

Modest Goals for Slow-Learners

The Mentally Handicapped Child in High School

MORRIS SALARIO
In Chicago Schools Journal

WHAT happens to the educable mentally handicapped (EMH) children who have reached high-school age chronologically but who are not, of course, able to do high-school work?

For such children, the Chicago Public Schools operate 17 special classes in 12 high-school buildings. The objectives of this EMH secondary-school program are to assist these children in acquiring social adequacy and occupational competency. By the former is meant the ability to get along in the community without supervision, by the latter the ability to hold a job and support themselves.

To be admitted to these special high-school programs, the EMH pupil in the elementary school must meet requirements other than appropriate chronological age. He must have an intelligence quotient of 65 or higher as measured by a recent test and must have attained at least fourth-grade competency in both reading and arithmetic. In addition, he must possess personal and social qualities which indicate a probability that he can adjust to a high-school program.

Before he is enrolled, a parent conference is arranged. This is planned to help the parent and student understand thoroughly the opportunities and benefits as well as the limitations of the EMH secondary-school program.

Morris Salario teaches in the Educable Mentally Handicapped (EMH) Program at Crane High School, Chicago, Illinois. Reported from Chicago Schools Journal, *XLI (March 1960), 262–66.*

EMH divisions at the secondary level contain from 20 to 25 students each who range in age from 15 to 17 years. Each group has its own classroom and division teacher. When they enter, these boys and girls are required to complete the same office records and program cards as all other high-school students. They are given the same kind of grade books, the same identification cards, and the same football and basketball schedules. They are listed in the regular school absence bulletin and are included in the student council proceedings and in all school assembly programs. They are free to participate in any school club or team according to their interests and abilities.

By the same token EMH students must abide by the general rules of the school.

These EMH students are expected to study and to complete all assignments on time and to the best of their abilities. Their division teacher is responsible for teaching them five major subjects as well as giving them individual guidance and counseling. The major subjects involve areas of the language arts, consumer mathematics, occupational education, practical science, and social studies. These subjects are taught during two double periods and one single period in the student's nine-period program.

For the other four periods, the EMH students are programmed to other teachers and classrooms throughout the school where they are integrated with the regular boys and girls of the high school. These classes include wood shop or auto shop for the boys, and foods and clothing for the girls as well as classes in library, music, art, and physical education—athletics, swimming, dancing, and health. The EMH students are also integrated with normal high-school boys and girls during lunch periods.

As a result of this integration and because of the relative impersonality of a large high school, there is no problem of relationships with the regular students. In the music class or shop class, an EMH student is just another student. The EMH student is, however, aware of his own deficiencies and it is this awareness which must be compensated for to create a sense of belonging.

A SPECIAL PROGRAM

It has been wisely stated that the EMH secondary program is a *special* program involving students who have *special* needs and require a *special* education and that the traditional framework of the school's grade and course structures are only followed because it has been found that radical and conspicuous segregation is the worst possible treatment for EMH boys and girls at the high-school level. Every means is taken to help each of these children develop his fullest potential and to develop an awareness of his capabilities and limitations so that he will be able to face life realistically and enjoy his achievements fully.

When he is taught reading, letter writing, oral conversation, budgeting, art, music, health, change making, bill itemizing, and meal planning, it is with the object of helping him to care for his own needs in society and to contribute to his family and community. But the real core of this teaching is the teacher's desire, through an understanding of each student's emotional needs, to help an EMH boy or girl blossom into a real person, slow-learning though he may be.

Such skills as were mentioned above are taught through the use of units of work so designed as to incorporate one or more skills into

a practical and complete life situation. Naturally, patience and considerable repetition and drill are necessary. The degree of success attained seems definitely to be linked to the degree to which the skills are clearly applicable to the students' interests, needs, and patterns of daily living.

Insofar as parallels can be established, the work in language and arithmetic is generally of fifth- or sixth-grade difficulty, although some of the activities defy "grade placement" because they involve work tailored to the peculiar needs of the group. Selection of textbooks is difficult because most of those on their reading level are intended for elementary-school-age children. EMH girls and boys need materials they can read; but they also need materials of interest to adolescents. They are ashamed to carry and study books designed for younger children.

Standardized mathematics and reading tests are administered at the completion of each semester and students are given grades for each course in the regular manner. The EMH teacher evaluates their achievement largely in terms of abilities. Hence the marks they receive tend to be "good" grades. The grades received for regular classes are generally low. As a rule those working up to their abilities in the special classes also receive the better grades in their regular work. They are also rated for traits and behavior in the usual fashion.

After the student's achievement is evaluated, the teacher may make recommendation that the student be separated from the EMH program and be enrolled in regular classes. At Crane High School about four students each semester show sufficient progress and are permitted to follow the regular school program. As yet no individual so placed has ever gone on to be graduated in the usual fashion. About half of the group sent into the regular program complete one semester's work and go on to a second semester. The other half leave school.

On the other hand, if the student's achievement is not significant, he continues in the EMH program where emphasis is directed toward development of occupational and social competency. There is a regular avenue of communication between the teacher and the employment office for this purpose. Those who remain in the EMH program until regular school-leaving age are given an unofficial certificate of completion. If a student's achievement indicates inability to adjust, or if a student's record indicates a lack of interest or deliberate truancy, the student is dropped from the program or sent to continuation school.

In a program such as this, the goals must obviously be modest ones. They are nonetheless worthwhile. Given the limited potential of our students, we feel that we have been quite successful in achieving the goals we set. •

The Hearing-and-Speaking-Only Phase

Teaching Modern Foreign Languages without a Book

PATRICIA O'CONNOR

In Modern Foreign Languages in High Schools: Pre-reading Instruction

EVERYONE now recognizes that a language—any language—consists of a set of habits. We know that our ability to understand and use our native language is simply the possession of the specific set of habits which characterize English. This fact about language in general has its corollary in foreign-language study and teaching. If the foreign language is to be usable, it must consist of a set of habits which are as deep as the opportunities for practice allow.

We all recognize, also, that when a youngster begins the study of a foreign language in secondary school, his learning cannot follow the slow, natural processes by which he learned his native language in childhood. There is not enough time. Nor could any school situation duplicate the opportunities for constant practice and correction which the child-learner receives from his parents, his older brothers and sisters, and his playmates. We do know, however, that the essential steps of language learning must be the same. Foreign-language habits, like those of the native language, are formed through practice, correction, and more practice.

Patricia O'Connor is Consultant for Foreign Languages in the U. S. Office of Education. *Reported from* Modern Foreign Languages in High School: Pre-reading Instruction, *OE-27000, Bulletin 1960, No. 9, U. S. Office of Education, 1-7.*

Steps are being taken to provide foreign-language students with opportunities for this necessary practice. New texts and teaching materials are being designed to include more oral work with the basic language patterns, and an increasing number of secondary schools are installing language-laboratory facilities which will multiply each individual student's chances for guided practice in hearing and speaking.

Along with all our growing understanding of the nature of foreign-language learning, there is another development which is having an immediate effect on foreign-language teaching in the secondary school. A change is taking place in the planning of the first-year foreign-language course.

Many teachers of beginning classes are planning for a pre-reading, exclusively aural-oral

period of instruction before they begin work with the regular textbook. During this pre-textbook phase, the teachers are attempting to develop in their pupils reliable, correct, firmly practical habits of hearing and speaking with a *very limited* portion of the foreign language as a secure foundation for their later more rapid progress. "Very limited" refers to the strict limitation of the number of different items of foreign-language structure and vocabulary introduced during this aural-oral phase. There would, of course, be complete coverage of the sound system.

Quite apart from theoretical arguments based on the nature of language, the pedagogical advantages to be derived from a hearing-and-speaking-only phase of the beginning course are obvious.

ADVANTAGES

1. A basic phrase or sentence can be imitated and repeated orally far more often than in writing. So can its variations. Under a teacher's immediate guidance, an entire class of several dozen pupils can imitate, repeat, and vary a basic model many times.

2. Oral classroom practice permits immediate correction of errors. Any mistake (that is, any beginning of a bad habit) can be corrected at once in oral practice and the appropriate desired habit immediately substituted. In written practice, the best the teacher can do is to put a red mark alongside the mistake after it has been made. The pupil's correction of his bad-habit performance comes hours or days after the error itself.

To these advantages can be added another important consideration. This initial period of instruction often will establish the pupils' attitudes toward the new language. It is of great value that our students should early come to view the foreign language as communication, as something to be used rather as something to be studied about, or as a code to be deciphered.

Some teachers have hesitated to try an extended period of exclusively aural-oral instruction because they distrust their own conversational fluency in the foreign language. This notion that only a teacher with a wide range of conversational fluency can successfully conduct such instruction is a mistaken one. These new language habits require very intensive well-planned practice on a limited body of vocabulary and sentence patterns, and, of course, complete fluency and total accuracy within the limits of this planned material are necessary. But the teacher need not—and in the initial stages he should not—use any additional foreign-language materials in his pupils' hearing.

What, exactly, *is* the classroom teacher's role in the early development of his pupils' new foreign-language habits? He has three key functions: a model for the pupils' imitation; judge of the

pupils' accuracy; and manager, stage director, and orchestra conductor of the oral practice.

Audio aids are now recognized as an essential part of the foreign-language classroom equipment. No combination of equipment, however, can replace the teacher. But what can the machine do in the foreign-language classroom that the teacher cannot do?

1. The machine provides a consistent model. It can reproduce a sentence for imitation in precisely the same form over and over again. The machine never gets tired.

2. Recordings can provide a variety of voices—those of men and women, children and adults—for the students' recognition and imitation. These recordings inspire confidence because unquestionably they are genuine foreign language.

3. By taking over part of the burden of supplying sufficient repetitions to provide ample listening experience, the machine can free the teacher for the important job of noting the progress of individual pupils and determining points of difficulty which will require additional practice.

The recording as a model for the pupils' imitation, however, has certain limitations which should be recognized. Particularly in the early weeks of the beginning foreign-language course, the live voice is still an almost indispensable first model. Since the recording has no face, it can provide neither the important facial gestures and postures which accompany speech nor the help via lip reading which all of us, consciously or unconsciously, practice.

The question always arises concerning the extent to which English may be used in the beginning foreign-language course. Many teachers feel that with the possible exception of the first few class meetings only the foreign language should be spoken. Others believe that English should be used by the teacher whenever he considers it necessary. While they agree that the foreign language should be used as much as possible they believe that the teacher's judicious use of English can assure a more efficient use of class time and thus allow for more active language practice by the pupils. Some teachers prefer to organize the classwork in such a way that the first or last few minutes of each period can be saved for questions and explanations in English. There is general agreement that the interweaving of English and the foreign language—the use of English in a foreign-language sentence, for example—should be avoided. •

How to Translate Educational Writing

There was harmony between teacher and pupils, an expression of mutual feelings on many levels: The students were confused by his questions and he was bewildered by their answers.—Murray Bromberg in *High Points.*

With Education in Washington

THE EDUCATION DIGEST WASHINGTON BUREAU

Political Pledges. – Pledges, promises, and purple prose dominate the 1960 platforms of the Democratic and Republican parties –but there are some hard facts to be read in each political statement.

Both platforms devote an inordinate number of words to issues in which educators have an interest. Interspersed among the purple prose are definite commitments.

From the Democrats: Aid for school construction and teacher salaries. A start toward integration by 1963 in every school system affected by the U. S. Supreme Court decision.

From the Republicans: Aid for school construction, yes; for teacher salaries, no. An immediate start toward integration–"no pretense of target dates . . . no moratoriums . . . no postponing until 1963 . . ."

With these explosive questions out of the way, the platform writers then promise support for the following educational aims or projects:

Pledge the Democrats: support for student loans and scholarships; for vocational retraining of youths and adults who lose their jobs because of automation; for college housing; and for basic research.

Pledge the Republicans: support for student loans and graduate fellowships; for library facilities; for college housing; and for basic research.

Both platforms refer to education as the right, or "birthright," of every American child. Both refer to it as a great public investment. But there is a fundamental difference in the thinking of the platform writers.

The Republican platform writers use several hundred words to stress that education is still essentially a local and state responsibility. "The federal government should assist selectively in strengthening education," say the Republicans. And although the word *selectively* is not underscored in the printed versions of the platform, it is evident that it is underscored in the thinking and speaking of the Republican policy-makers.

There is no such limiting factor in the Democratic platform. "The new Democratic Administration will end eight years of official neglect of our educational system," say the platform writers, and they promise "strong and inventive leadership of the President of the United States" on behalf of education.

Brave Talk.–Congress reconvened on August 8 to the accompaniment of brave talk by some of its members that the short, post-political-convention session would do what the longer, regular session failed to do. They predicted the final enactment of a federal-aid-to-education measure and its submission to the President.

It was brave talk because the formidable obstacle of the House Rules Committee was still in the way of a federal-aid bill. On the other hand, most of the legislative work on the measure had been completed. The Senate had passed its version of the bill as far back as February 4; the House acted favorably on its bill on May 26. The difficulty was that the two measures differed sharply. The Senate had approved a liberal piece of legislation, authorizing aid for both school construction and teacher salaries, and giving state educational authorities freedom of choice to use the money for either purpose as they saw fit. The House, however, restricted aid to school construction.

Some observers had assumed that the differences could be ironed out in a routine conference between the two houses. But such a conference was blocked on June 9, when Representatives James C. Davis (D., Ga.) and August E. Johansen (R., Mich.) rose almost simultaneously from their seats and declared, "I object." This dramatic moment was a blow for friends of federal aid to education. But a second, equally stunning blow was in the offing. On June 22, the House Rules Committee gave its opinion of the floor objection by voting five to seven to deny the House the right to enter into conference with the Senate on a compromise measure.

Only the extraordinary decision to recess the Congress in July and reconvene it after the political conventions kept the federal-aid measure alive in 1960.

The peremptory action of the House Rules Committee led to angry charges by Representative Frank Thompson (D., N.J.) that "a little group of willful men are running roughshod over the will of the majority in Congress." Later came predictions that the powers of the Rules Committee would be sharply cut, either during the bobtail session in August or when a new Congress starts in January.

Project Talent.—Statisticians in Washington are now interpreting data intended to show what 500,000 American boys and girls know, how well they can think, and what their dreams and plans are for the future.

The facts are in the hands of Project Talent. This is the name of a group of researchers headed by John C. Flanagan, who is also head of the American Institute for Research.

Project Talent has undertaken what has been called the most ambitious inventory of human talent ever attempted by any nation. It is anticipated that work of the Project will provide a sound basis for early identification, better development, and greater utilization of human talents. Money for the research, which started in April 1959, came from the U. S. Office of Education, the National Institute of Mental Health, and the Office of Naval Research.

The scope of the Project is impressive. Close to 500,000 students attending the 9th, 10th, 11th, and 12th grades in 1,357 schools were asked to take a series of tests lasting two days. Most of the testing took place during the months of March and April of this year. The tests were designed to measure the pupils' fund of general information and their abilities in reading, writing, mathematics, reasoning, and problem-solving. In addition, students were asked to fill out inventory sheets about their backgrounds, interests, and day-to-day activities, and to write brief themes on "My Views about an Ideal Occupation" and "What High School Means to Me." Close to one billion items of information have been recorded and fed into high-speed computers.

To get a picture of the schools involved in the study, Project researchers had principals fill out a questionnaire on school characteristics, and asked school counselors to describe the guidance programs serving the 500,000 students.

What will the researchers do with the findings?

1. They will send to each participating school the scores made by its own students. Scores for individual students will not be published or made available to anyone other than the principal and counselor of the school. Scores are to be used for counseling purposes.

2. Project researchers will also summarize the information to give the nation an idea of the potential talents and abilities of its youth, and the adequacy of the schools in serving them. A series of "Project Talent Reports" are to be published during 1960 and 1961.

3. Researchers also plan to use the findings as a basis for one-, five-, 10-, and 20-year studies. In other words, questionnaires will go out to samples of the youth in 1961, 1965, 1970, and 1980 in an effort to find out how well the education of this decade has prepared them for life two decades hence.

NDEA Progress Report.—The National Defense Education Act marks its second birthday this month.

Once again, the statisticians are at work summing up the results. Below is an eclectic summary of achievements which avoids figures as much as possible.

Loans to college students: Instead of drying up other sources of student loans, as some had predicted, the Student Loan Program has stimulated nonfederal loan activity. Colleges and state legislatures alike have increased their loan funds.

Strengthening instruction in foreign languages: Before the NDEA, a language laboratory in an American high school was a rarity. Today, more than 500 schools have such facilities.

Strengthening science instruction: As an example of progress, from 90 to 95 percent of the school districts in six states are taking part in projects designed to im-

prove the teaching of science. (The states: Kentucky, Louisiana, Ohio, Oregon, Washington, and West Virginia.)

Strengthening mathematics instruction: NDEA projects "are creating a ferment in mathematics education."

Fellowships: The National Defense Fellowships are shortening the time taken by graduate students to complete their study. Up to the present time, the average graduate student required about seven years to earn his doctorate. Today NDEA fellowships assure the student three years of full support for full-time study. The result is that the average candidate for the Ph.D. holding an NDEA fellowship will be able to complete his work in four years or less.

Improvement of counseling: State departments of education have added new supervisory guidance workers. Local schools have added large numbers of new counselors to their staffs. School systems are making greater use of machine-scoring services in testing, relieving teachers and others of long hours of drudgery. Workshops and institutes help teachers and counselors become more skilled in the difficult art of counseling.

New educational media: NDEA funds are helping pay for three types of research projects: (1) those designed to help the classroom teacher make greater use of television; (2) those designed to find out how teaching machines can be used to best advantage; (3) those designed to test the effectiveness of tapes, television, radio, and traditional teaching aids.

Technical education: The NDEA is awakening vocational educators to the fact that industry and government need thousands of highly skilled technicians. Such technicians can be trained only with new types of curriculums, new types of facilities, and new types of teachers.

Improvement of statistical services: Some examples of improvement can be found in Georgia, which has revised its entire statistics-gathering machinery; in Massachusetts, which now produces in three days a statistical report which previously required 90 days; in Mississippi and Oklahoma, which are converting their statistical work from manual to machine operations.

During the first two years of the NDEA, Congress appropriated for defense education purposes $275,000,000. Because there is a general feeling in Washington that the Act has been a success, Congress may well be as generous, or more so, with its financial support during the remaining two years of the Act's life. And there is already some agitation in Washington to continue the program beyond the original four years authorized in 1958. Those who want to see the Act continued have been stressing a single point: The effect of the NDEA has been to strengthen, rather than weaken, the state organizations responsible for education. •

• Educational News •

CHANGES IN SUPERINTENDENCIES:

Bridgeport, Conn.: **Joseph B. Porter,** formerly superintendent at Watertown, Conn., is now superintendent, succeeding **Augusta Mendel,** retired.

Evansville, Ind.: **Herbert Erdmann,** formerly assistant superintendent, has succeeded **Ralph Becker,** who resigned to become regional representative of the U. S. Office of Education in Kansas City, Mo.

Newton, Mass.: **Charles E. Brown,** formerly assistant superintendent, is successor to **E. N. Dennard,** now superintendent at Tyler, Tex.

Atlanta, Ga.: **John W. Letson,** formerly superintendent at Chattanooga, Tenn., has succeeded **Ira Jarrell,** retired.

Stillwater, Okla.: **W. D. Carr,** formerly superintendent at Cushing, Okla., is successor to **R. R. Russell.**

Youngstown, Ohio: **J. Harry Wanamaker,** acting superintendent since the death of **J. Fred Essig** in February, has been appointed superintendent.

Long Branch, N. J.: **William H. Meskill,** high-school principal, has been named successor to **Harmon M. Bradford,** retired.

New York, N. Y.: **Jacob Greenburg,** deputy superintendent, has retired after 50 years' service in New York City school system.

LaCrosse, Wis.: **Conan S. Edwards,** formerly assistant superintendent at West Allis, Wis., has succeeded **Arthur F. Jordan,** resigned.

North Tonawanda, N. Y.: **Maurice E. Friot,** formerly assistant superintendent, is successor to **Richard A. Jensen,** retired.

Covington, Ky.: **Glenn O. Swing,** superintendent for 33 years, has retired.

Logansport, Ind.: **Carl Zimmerman,** formerly assistant superintendent, has succeeded **Charles Sharp,** now head of a government school in Teheran, Iran.

Aberdeen, Wash.: **Murray Taylor,** formerly of Burlington, Wash., is now superintendent.

Arcadia, Calif.: **Burtis E. Taylor,** formerly assistant superintendent at Riverside, Calif., has been named successor to **William Starckel,** who resigned to join an eastern management consultant firm.

Erie, Pa.: **Joseph H. Zipper,** assistant superintendent since 1958, is now superintendent.

Zanesville, Ohio: **Wallace E. Blake,** formerly superintendent at Logan, Ohio, has replaced **Donald F. Summers,** retired.

Middletown, N. Y.: **Thor Krogh,** formerly high-school principal, is successor to **Ralph Shattuck,** resigned.

Terre Haute, Ind.: **Max P. Gilbert,** who has been acting superintendent since the resignation of **Wayne P. Watson,** has been named superintendent.

Aberdeen, Idaho: **Roy A. Weston** has retired.

Cuyahoga Falls, Ohio: **Richard Gousha,** has been named successor to the late **F. M. Bode.**

Shaker Heights, Ohio: **Donald G. Emery,** formerly dean, College of Adult Education, Municipal University of Omaha, Neb., has succeeded **William Slade, Jr.,** retired.

COLLEGE PRESIDENTS:

Indiana University, Bloomington: **Herman B. Wells** has announced his resignation, effective July 1, 1962, to assist in development of the research division, Indiana University Foundation.

Fairmont State College, W. Va.: **Eston K. Feaster,** dean of the college of education, West Virginia University, Morgantown, has been named successor to the late **John W. Pence.**

University of Tennessee, Knoxville: **Andrew D. Holt,** formerly vice-president, has been inaugurated as president.

Eastern Kentucky State College, Richmond: **Robert R. Martin,** formerly Kentucky state commissioner of finance, has succeeded **W. F. O'Donnell,** retired.

Bradley University, Peoria, Ill.: **Harold P. Rodes** has resigned to become president of General Motors Institute, Flint, Mich.

University of Dallas, Tex.: **Robert Morris,** formerly chief counsel of the Senate Internal Security Subcommittee, has been named president.

Thiel College, Greenville, Pa.: **Frederic B. Irvin** has resigned to become cultural officer, U. S. Information Agency.

Chatham College, Pittsburgh, Pa.: **Edward D. Eddy, Jr.,** formerly vice-president of the University of New Hampshire, Durham, has succeeded **Paul R. Anderson,** now vice-president at Temple University.

North Central College, Naperville, Ill.: **Arlo L. Schilling,** 35, formerly assistant superintendent at Elkhart, Ind., has succeeded **C. H. Geiger,** retired.

Mississippi State University, State College: **Dean W. Colvard,** formerly dean at State College of Agriculture and Engineering, Raleigh, is the new president, succeeding **Ben Hilbun.**

Sarah Lawrence College, Bronxville, N. Y.: **Paul Langdon Ward,** formerly of Carnegie Institute of Technology, has succeeded **Harold Taylor,** resigned.

Peninsula College, Port Angeles, Wash.: **E. John Maier,** dean at Yakima Valley Junior College, Wash., has been appointed first president of the college, which is expected to open in the fall of 1961.

Southwestern State College, Weatherford, Okla.: **Al Harris,** formerly superintendent at Clinton, Okla., has been named president.

TEACHER-TRAINING INSTITUTIONS: Pennsylvania State University, University Park: **Charles M. Long,** professor of education and head of the department of elementary education, has resigned to become specialist in elementary education, U. S. International Cooperation Administration, Education Division.

Michigan State University, East Lansing: **John E. Ivey, Jr.,** president of the Learning Resources Institute of New York City, president of the Midwest Program on Airborne Television Instruction, and executive vice-president of New York University, has been appointed professor of education and consultant to the president. He will serve part time this year and full time starting in September 1961.

University of Chicago, Ill.: **Willard J. Congreve,** formerly principal of Von Humboldt Elementary School, Chicago, has been appointed assistant professor in the department of education and principal of the University of Chicago High School. Also named assistant professor in the department of education is **Frederick F. Lighthall,** formerly of Yale University, who has been conducting research on anxiety in children.

University of Illinois, Urbana: **Alonzo G. Grace,** formerly associate dean of the school of education, New York University, has been named dean of the college of education.

Seattle Pacific College, Wash.: **Ernest W. Horn,** formerly dean of the school of education, is now director of curriculum in Marion, Ind. His successor is **Elmer B. Siebrecht.**

University of Pittsburgh, Pa.: **Richard Wynn,** formerly associate coordinator, Cooperative Center for Educational Administration, Teachers College, Columbia University, is now associate dean and professor of education.

University of Michigan, Ann Arbor: **Harlan C. Koch,** assistant dean of the graduate school and professor of education, has retired. **John S. Brubacher,** who has been on leave from Yale University the past year conduct-

ing the Four-College Study for the state of Connecticut, has been appointed professor of higher education.

Midland College, Fremont, Neb.: **Cecil E. Walker,** formerly superintendent at Seward, Neb., is now head of the education department.

University of New Mexico, Albuquerque: **Peter Prouse,** formerly associate executive director of the National School Boards Association, is now associate professor of education.

Evansville College, Ind.: **Lucille Jones,** head of the department of education for 18 years, has retired.

Yeshiva University, New York: **Benjamin Fine,** dean of the graduate school of education, has resigned to devote his time to writing.

Pacific Lutheran University, Tacoma, Wash.: **John Amend,** formerly assistant superintendent at Aberdeen, Wash., is now dean of the college of education.

George Peabody College for Teachers, Nashville, Tenn.: **Rodney Tillman,** director of elementary education for Montgomery County, Md., has been named professor of elementary education and curriculum.

George Washington University, Washington, D. C.: **Gordon L. Lippitt,** formerly assistant director, Division of Adult Education Service, NEA, is now professor of behavioral sciences.

Upper Iowa University, Fayette: **Paul Pickett,** formerly superintendent at Fayette, is now a member of the education department faculty.

Arkansas State College, State College: **Lloyd Goff,** formerly superintendent at Jonesboro, Ark., is now a member of the education department faculty.

University of Wisconsin, Madison: **Burr W. Phillips,** professor of education and history, and **Mrs. Lois Griggs,** professor of elementary education, have retired.

Oberlin College, Ohio: **Floyd D. Grove,** professor of education and a member of the faculty for 31 years, has retired.

New York University, N. Y.: **Ellis F. White,** formerly executive director of the Education Advisory Council, International Business Machines Corporation, is now chairman of the department of higher education, succeeding **Alonzo F. Myers,** retired.

Franklin College of Indiana, Franklin: **Curtis D. Kirklin,** head of the education department, has retired after 36 years on the faculty.

Other Changes and Appointments:

Gerald W. Smith, superintendent at Elmwood Park, Ill., has accepted the newly created dual position of executive secretary of the Illinois Association of School Administrators and administrative relations associate of the Illinois Education Association.

Virgil R. Walker has been named director, Educational Statistics Branch, U.S. Office of Education, and **Herbert S. Conrad** has been named coordinator of research, Division of Higher Education, U. S. Office of Education.

Ted C. Gilbert, formerly assistant superintendent of public instruction for Kentucky, is now executive secretary of the Kentucky Council on Public Higher Education, Frankfort.

J. Paul Mather is now president and executive director of American College Testing Service, Iowa City, Ia.

J. C. Fitzgerald, director of the Division of Continuing Education, Oklahoma State University, has been named president-elect of the Department of Rural Education, NEA. President-elect of the Division of County and Rural Area Superintendents is **T. C. Knapp,** Canton, Ohio.

Matthew J. Brennan, formerly of the U. S. Office of Education, is now head of the education branch of the U. S. Forest Service's Division of Information and Education. He suc-

ceeds **Charles Wesley Mattison,** retired.

Robert Dean Patton, professor of economics, Ohio State University, has been appointed editor of the *Journal of Higher Education.*

Byron W. Hansford, formerly deputy superintendent of public instruction for Michigan, is now Colorado commissioner of education, succeeding **H. Grant Vest,** resigned.

RECENT DEATHS:

Harold Rugg, former professor of education at Teachers College, Columbia University, and author of numerous school textbooks, at the age of 74.

Robert M. Strozier, president of Florida State University, at the age of 53. He died while visiting the University of Chicago, where he was a candidate for the chancellorship.

Frank Ellsworth Spaulding, former superintendent at Cleveland, Ohio, and Minneapolis, Minn., at the age of 93. He organized the education department at Yale Graduate School and was its chairman for nine years.

NEA Conference

ADOPTION of a resolution somewhat stiffening the NEA's policy stand on integration in the schools was one of the highlights of the 98th annual convention of the National Education Association this summer in Los Angeles, Calif.

The Association also approved the affiliation of two new departments with the NEA—The American Association of School Librarians and the American Driver Education Association.

Announcement was also made at the convention of a major two-year project by the association—a comprehensive inventory of space-age changes in the nation's schools. The project, designed to test the adequacy of the American school program and to make recommendations for further developments, will be headed by Ole Sand of Wayne State University, Detroit.

Ewald Turner, a junior-high-school crafts teacher in Pendleton, Ore., was named vice-president of the Association in a closely-contested election. Clarice Kline, Waukesha, Wis., is the new president.

Russia Revisited

A GROUP of 56 members of the Comparative Education Society are now in Russia studying first-hand the recent controversial "reforms" in Soviet education.

The 56 educators, led by William W. Brickman, professor of education at New York University, left the U. S. on Aug. 13 and will return Sept. 17. The educators are particularly interested in seeing the effect on Soviet students of recent fundamental changes in schooling, especially the system of "polytechnical training" pushed by Premier Khrushchev as a means of increasing economic production in the Soviet Union.

This year's visit to the Soviet Union is the second undertaken by members of the society. Many of the same educators toured Russia in 1958 and brought back the first authoritative information on Soviet education under the Communist regime.

National Council

ESTABLISHMENT of a National Council on Education has been recommended by John H. Fischer, dean of Teachers College, Columbia University, to help in national education planning.

Dr. Fischer called for a group chartered by Congress, such as the American Red Cross, but financed by foundations, local school boards, and other groups rather than by federal money. Such a council would provide national purpose and guidance to the curriculum without having any powers which could lead to regimentation, he said.

Catholic School Problems

THE big problem in the Roman Catholic school in the U. S. is the same problem affecting the country's public schools—teacher shortage. This fact has been revealed by the Department of Education, National Catholic Welfare Conference.

The Department reports that lay teachers, as opposed to religious orders, now make up 29 percent of the teaching staffs of this country's Catholic elementary schools. In 1945, 4.6 percent of the teachers were secular. By 1971, according to present estimates, secular teachers will outnumber nuns.

The Department also revealed that the Catholic school system in the U. S. is now the largest private school system in the world. Last year more than 4,260,000 pupils were enrolled in 10,278 Catholic elementary schools and 827,912 in 2,401 Catholic high schools.

College Admissions

A TWO-YEAR, world-wide study on university admissions has been started through the initiative of Unesco and the International Association of Universities.

Supported by a grant from the Carnegie Corporation of New York, the study will be directed by Frank H. Bowles, president of the College Entrance Examination Board, who has been granted a leave of absence for the task.

The study was started after a commission of nine experts, drawn from countries with more than 85 percent of the world's university students, reported at a meeting in Paris this summer that a "condition approaching crisis" exists with respect to admission to universities in all countries of the world.

DATES OF THE COMING MONTHS:

Oct. 7-12, Department of Rural Education, NEA, Louisville, Ky.

Oct. 9-13, Association of School Business Officials, St. Louis, Mo.

Oct. 14-16, National Association of Public School Adult Educators, Denver, Colo.

Oct. 17-21, National Safety Council, Chicago, Ill.

Oct. 20-22, Youth Conference on the Atom, Chicago, Ill.

Nov. 6-12, American Education Week.

Nov. 7-10, National Institutional Teacher Placement Association, St. Louis, Mo.

Improving the Quality of Public School Programs: Approaches to Curriculum Development. Harold J. McNally and A. Harry Passow. New York: Bureau of Publications, Teachers College, Columbia University, 1960. Pp. xvii + 331. $4.95.

This book is an attempt to wed theory with practice in a manner helpful to administrators and curriculum workers. Reports of seven school systems where educational programs of exceptional interest have been built are included. These reports, written by educators from the areas described, give attention to program objectives, means of initiation, organization, procedures, personnel involved, etc.

Preceding these reports, the authors provide four chapters of analysis of curriculum problems, principles, and procedures. In the final chapter following the reports, they offer a summary and formulate guidelines and evaluation criterions based on the program descriptions.

The American Secondary School. L. O. Taylor, Don R. McMahill, and Bob L. Taylor. New York: Appleton-Century-Crofts, Inc., 1960. Pp. xiii + 492. $5.50.

The authors state in their preface that they have proposed in this book a program for the secondary school which is in agreement with the consensus of specialists in this field.

The book is divided into four parts. Part I is concerned with identification of aims and purposes of the high school. Part II is devoted to a consideration of the means and materials by which the purposes can be achieved. Part III deals with a presentation of five significant problems in secondary education: reporting student progress, the slow and rapid learner, the improvement of reading, guidance, and discipline and adjustment to school life. Part IV presents methods of improving service to youth.

Although the book was written as a textbook for a first course in secondary education, it should be of interest to teachers in service as well as administrators and supervisors.

Budgeting for Better Schools. Leon Ovsiew and William B. Castetter. Englewood Cliffs, N.J.; Prentice-Hall, Inc., 1960. Pp. xiv + 338. $7.95.

The importance of the budget and the budgetary process in improving the quality of education provided in local school systems is the underlying theme of this book.

In addition to being a comprehensive guide to several different types of school budgets, the book discusses the budget-making process in detail. It describes the many ways that a well-designed school budget can be used as an instrument for educational planning, evaluation, and financial control.

This practical book is written in an easy-to-understand manner.

The Junior College: Progress and Prospect. Leland L. Medsker. New York: McGraw-Hill Book Company, Inc., 1960. Pp. xiv + 367. $6.50.

This book, the result of a study of 76 two-year institutions in 15 states by Dr. Medsker, is designed to present an analysis of the functions

these institutions are performing, and how adequately they are doing their job.

The study first gives an overview of the two-year college movement, summarizing its strengths and weaknesses. In following chapters the author describes the students who attend the colleges, the programs offered by the colleges, the extent to which students transfer to four-year colleges, the performance and retention of transfer students, counseling efforts of the college, the attitudes of the teaching staff, and the position of the junior college in state-wide systems of higher education.

The final chapter projects the two-year college into the immediate years ahead—the major problems it will most likely encounter and conclusions pertaining to its organization and support.

Leadership for Improving Instruction. Washington, D. C.: Association for Supervision and Curriculum Development, NEA, 1960. Pp. x + 198. $3.75.

This book, the 1960 Yearbook of the ASCD, is a search through what is known about democratic leadership and an analysis of how it can be applied toward instructional improvement.

The Yearbook Committee points out that the purpose of the book is not to proffer specific solutions, but to stimulate thinking, discussion, study, and evaluation of present leadership practices.

For those already in leadership positions, this book outlines ways of improving their effectiveness. Attention is also given to developing potential leaders, since, as stated in the introduction, "all individuals and groups have leadership potential and exhibit leader behavior to some degree."

Handbook of Adult Education in the United States. Edited by Malcolm S. Knowles. Chicago: Adult Education Association of the U.S.A., 1960. Pp. xv + 624. $7.50.

This is an authoritative guide to the complicated and expansive field of adult education. The book provides more than a description of what adult education is. It also explains how adult education came about, why a new curriculum and methodology for adults is being developed, and where the adult-education movement seems to be going.

Approximately 50 authors are included in the essays contained in the volume.

Other Materials Received: Elementary

The Teaching of Reading. John J. DeBoer and Martha Dallmann. New York: Henry Holt and Company, 1960. Pp. viii + 360. $5.00.

Learn to Listen, Speak, and Write. Book 1. Marion Monroe, Ralph G. Nichols, and W. Cabell Greet. Chicago: Scott, Foresman and Company, 1960. Teacher's Edition, $1.20; Pupil's Edition, $.64. Practice Pad to accompany Pupil's Edition, $.40.

Exploring Science. Books 1 through 6. Walter A. Thurber. Boston: Allyn and Bacon, Inc., 1960. Teachers' Editions, $2.32, $2.52, $2.68, $2.88, $2.92, and $3.12.

Social Studies in the Elementary School Program. Wilhelmina Hill. Bulletin No. 5, 1960, U.S. Office of Education. Pp. vi + 110. Available from U.S. Government Printing Office, Washington 25, D.C. $.50.

Hi Neighbor. Book 3. New York: United States Committee for Unicef, 1960. Pp. 64. $1.50. Fun and folklore from the countries of Nigeria, Ethiopia, Greece, Chile, and Thailand.

English for Meaning. Book 7. Paul McKee, *et al.* Boston: Houghton Mifflin Company, 1960. Pp. xii + 468. $3.28.

Guidance of the Young Child. Louise M. Langford. New York: John Wiley & Sons, Inc., 1960. Pp. vii + 349.

Early Childhood Education. Hazel M. Lambert. Boston: Allyn and Bacon, Inc., 1960. Pp. x + 438. $5.95.

The Child and His Curriculum. (Third Edition.) J. Murray Lee and Dorris May Lee. New York: Appleton-Century-Crofts, Inc., 1960. Pp. ix + 596. $6.50.

Secondary

Our Environment; Its Relation to Us and **Our Environment; How We Adapt Ourselves to It.** Paul E. Smith. **Our Environment; How We Use and Control It.** Gordon E. Van Hooft. Boston: Allyn and Bacon, Inc., 1960. Pp. xiii + 464, xiii + 625, and xvi + 688. $3.96, $4.60, and $5.68, respectively. General science texts for junior-high school.

High Schools for a Free Society: Education for Citizenship in American Secondary Schools. Franklin Patterson. Glencoe, Ill.: The Free Press of Glencoe, 1960. Pp. 93. $1.00.

130 Basic Typing Jobs. Ruth I. Anderson and Leonard J. Porter. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1960. Pp. 62. $1.44.

Magruder's American Government. Revised by William A. McClenaghan. Boston: Allyn and Bacon, Inc., 1960. Pp. xii + 756. $5.44.

Basic Concepts of Elementary Mathematics. William L. Schaaf. New York: John Wiley & Sons, Inc., 1960. Pp. xvii + 386. $5.50.

College

The Open Door College: A Case Study. Burton R. Clark. New York: McGraw-Hill Book Company, Inc., 1960. Pp. xvi + 207. $5.00. A study of the San Jose Junior College during its first four years.

The Goals of Higher Education. Edited by Willis D. Weatherford, Jr. Cambridge, Mass.: Harvard University Press, 1960. Pp. 122. $3.50. Contains six essays by prominent educators.

Student Financial Aid; Manual for Colleges and Universities. Homer D. Babbidge, Jr. Washington, D.C.: American Personnel and Guidance Association, 1960. Pp. iv + 56. $1.50.

Teacher Education in the United States. Lindley J. Stiles, A. S. Barr, Harl R. Douglass, and Hubert H. Mills. New York: Ronald Press Company, 1960. Pp. viii + 512. $6.75.

Guidance

Careers and Opportunities in Chemistry; A Survey of All Fields. Philip Pollack. New York: E. P. Dutton & Co., Inc., 1960. Pp. xii + 147. $3.50.

Careers in Education. Frederick L. Redefer and Dorothy Reeves. New York: Harper & Brothers, 1960. Pp. xi + 209. $4.00.

School Guidance and Personnel Services. Francis C. Rosecrance and Velma D. Hayden. Boston: Allyn and Bacon, Inc., 1960. Pp. ix + 373. $6.00.

General

Cassell's Spanish Dictionary. Edited by Edgar Allison Peers, *et al.* New York: Funk & Wagnalls Company, 1960. Pp. xvi + 1477. $7.00, plain; $7.75, thumb-indexed.

Discussion, Conference, and Group Process. Halbert E. Gulley. New York: Henry Holt and Company, 1960. Pp. xii + 388. $4.50.

Do They Understand You? A Guide to Effective Oral Communication. Wesley Wiksell. New York: The Macmillan Company, 1960. Pp. ix + 200. $4.95.

Aging in Today's Society. Edited by Clark Tibbitts and Wilma Donahue. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1960. Pp. xxv + 418. $6.00.

The Overseas Americans. Harlan Cleveland, Gerard J. Mangone, and John C. Adams. New York: McGraw-Hill Book Company, Inc., 1960. Pp. xv + 316. $5.95. Emphasizes the responsibility of our higher educational institutions to prepare Americans for overseas service.

Canada; A Modern History. J. Bartlett Brebner. Ann Arbor, Mich.: University of Michigan Press, 1960. Pp. xvii + 553. $10.00. One of the History of the Modern World series.

Mental Health in Education. Merle E. Bonney. Boston: Allyn and Bacon, Inc., 1960. Pp. xiii + 434. $5.50.

Light from a Thousand Campfires. Edited by Kenneth B. Webb. New York: Association Press, 1960. Pp. 384. $4.95.

Case Studies in School Supervision. J. Bernard Everett, Mary Downing, and Howard Leavitt. New York: Rinehart & Company, Inc., 1960. Pp. v + 58. $1.00.

Introduction to Atomic Energy. William G. Atkinson. New York: John F. Rider Publisher, Inc., 1960. Pp. vii + 68. $1.35.

Audio-Visual Aids

Invitation to German Poetry. A 12", LP record. Selections made by Gustave Mathieu and Guy Stern and read by Lotte Lenya. New York: Dover Publications, Inc., 1960. $4.95. Includes a 165-page book with the German texts of the poems and English translations.

Operating Audio-Visual Equipment. Sidney E. Eboch. San Francisco: Howard Chandler, Publisher, 1960. Pp. 73. $1.75.

The Stereo Illusion and How It is Achieved. Audio-Visual Bulletin No. 5, American School Band Directors Association, 1960. Pp. 41. Available from Seymour Okum, 17367 Pinehurst St., Detroit 21, Mich. $.75.

Conversa-phone Children's Language Course. A LP record, with manual, designed for children, ages 6-12. Records available in Spanish, French, Italian, and German. New York: Arco Publishing Company, Inc., 1960. $2.98 each.

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